

FIG. 1

FIG. 2B

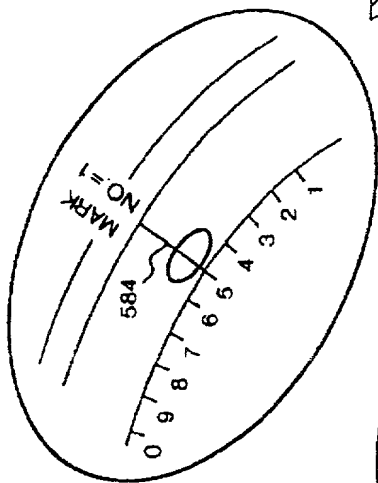


FIG. 2A

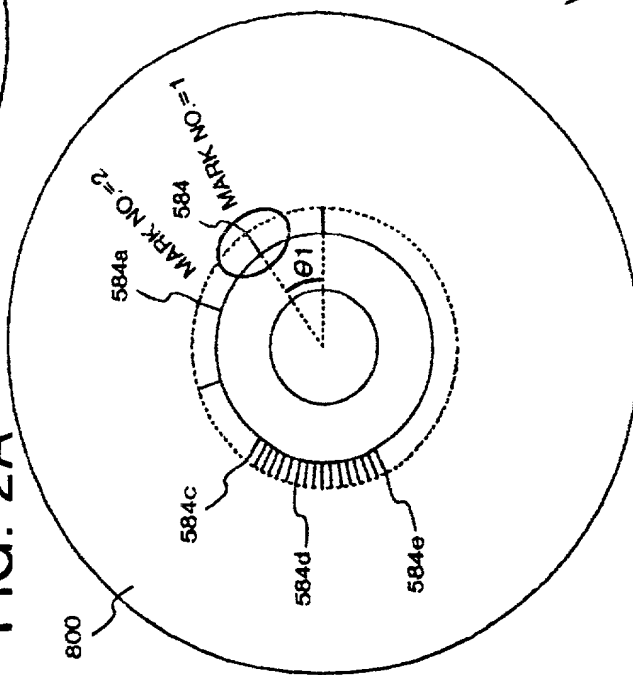


FIG. 2C

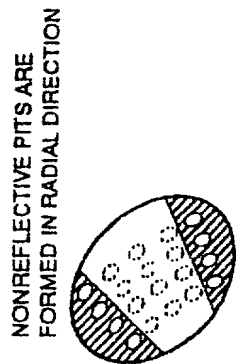


FIG. 2D

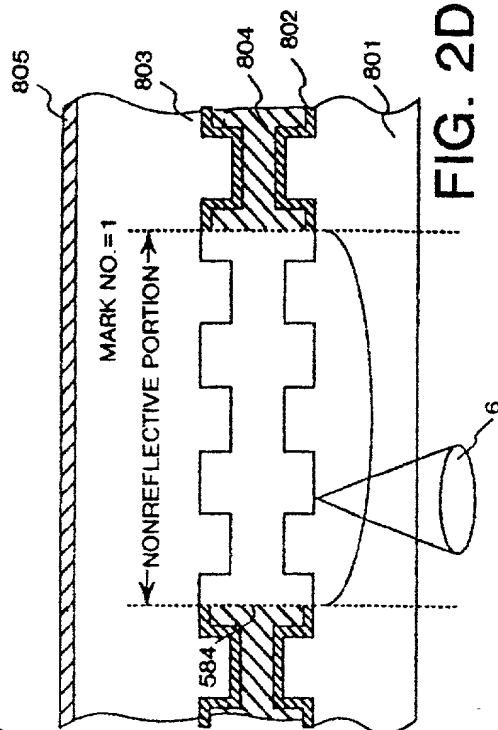
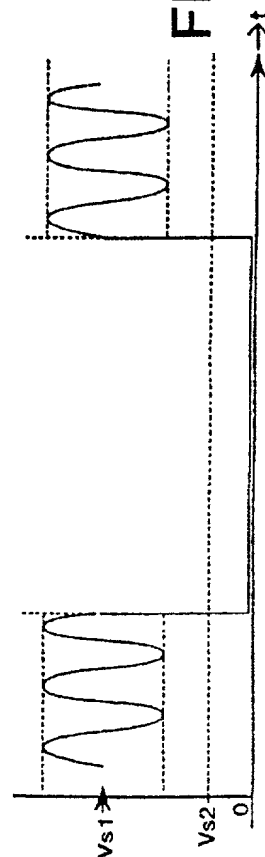


FIG. 2E



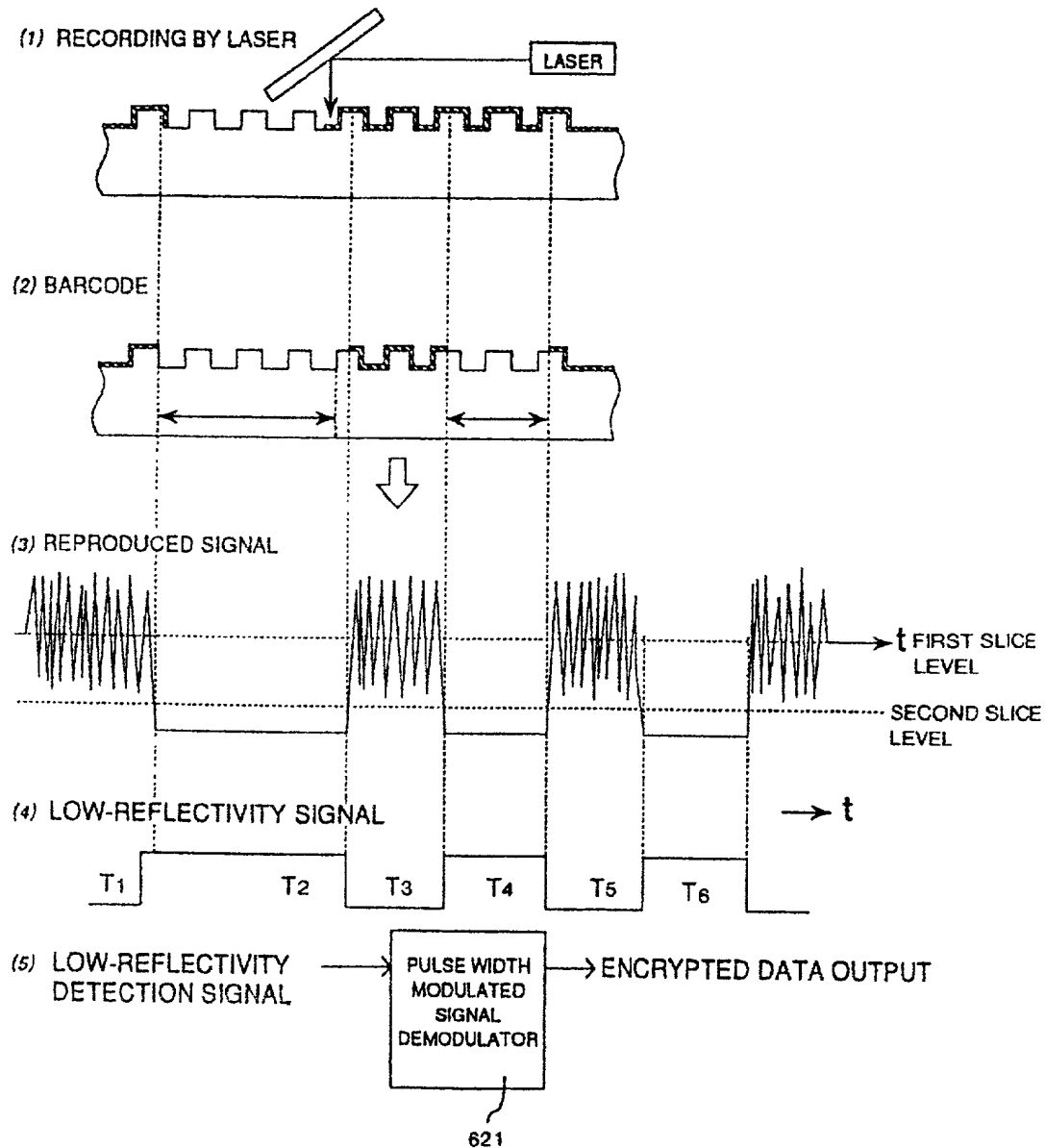


FIG. 3

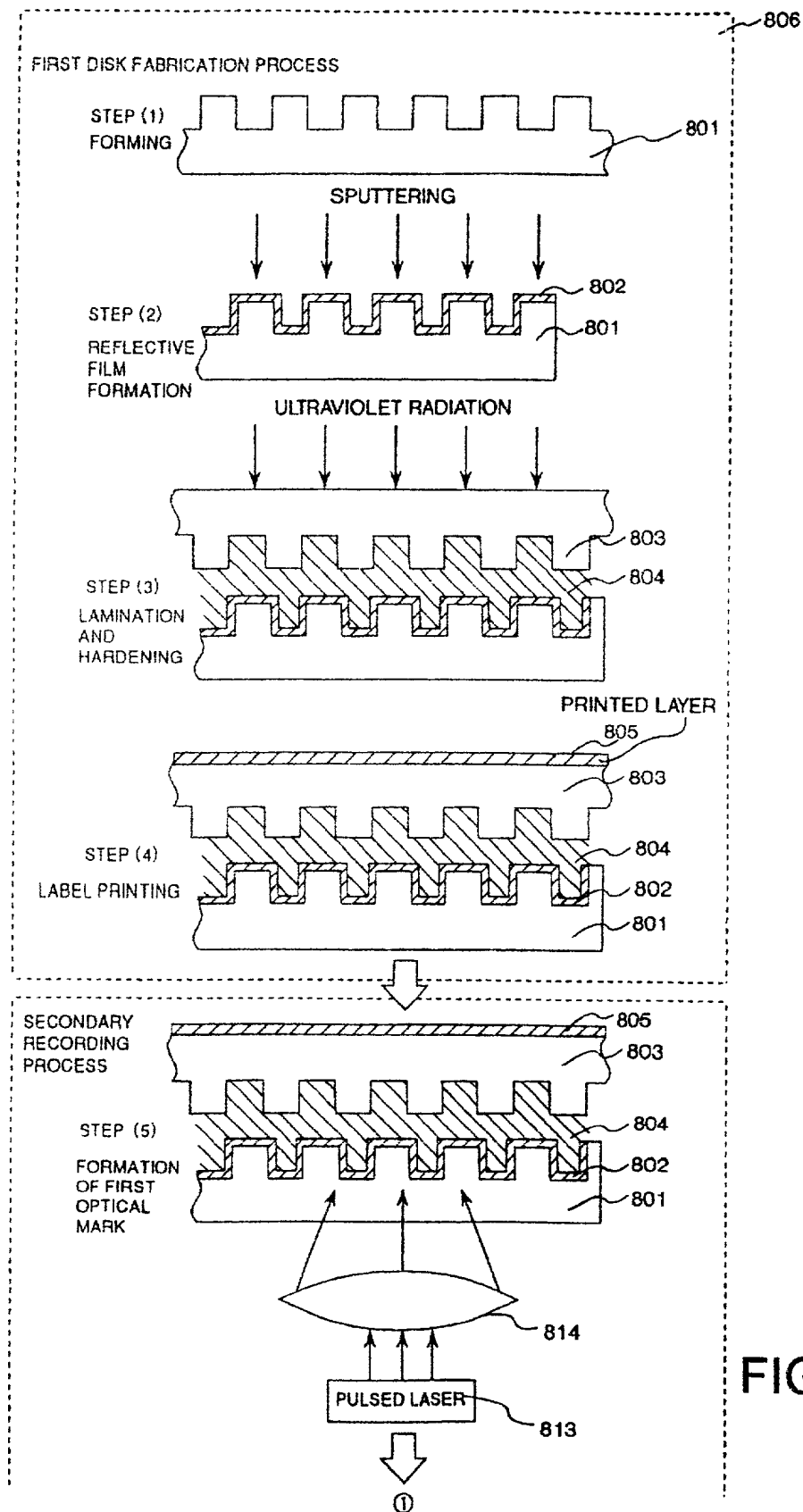
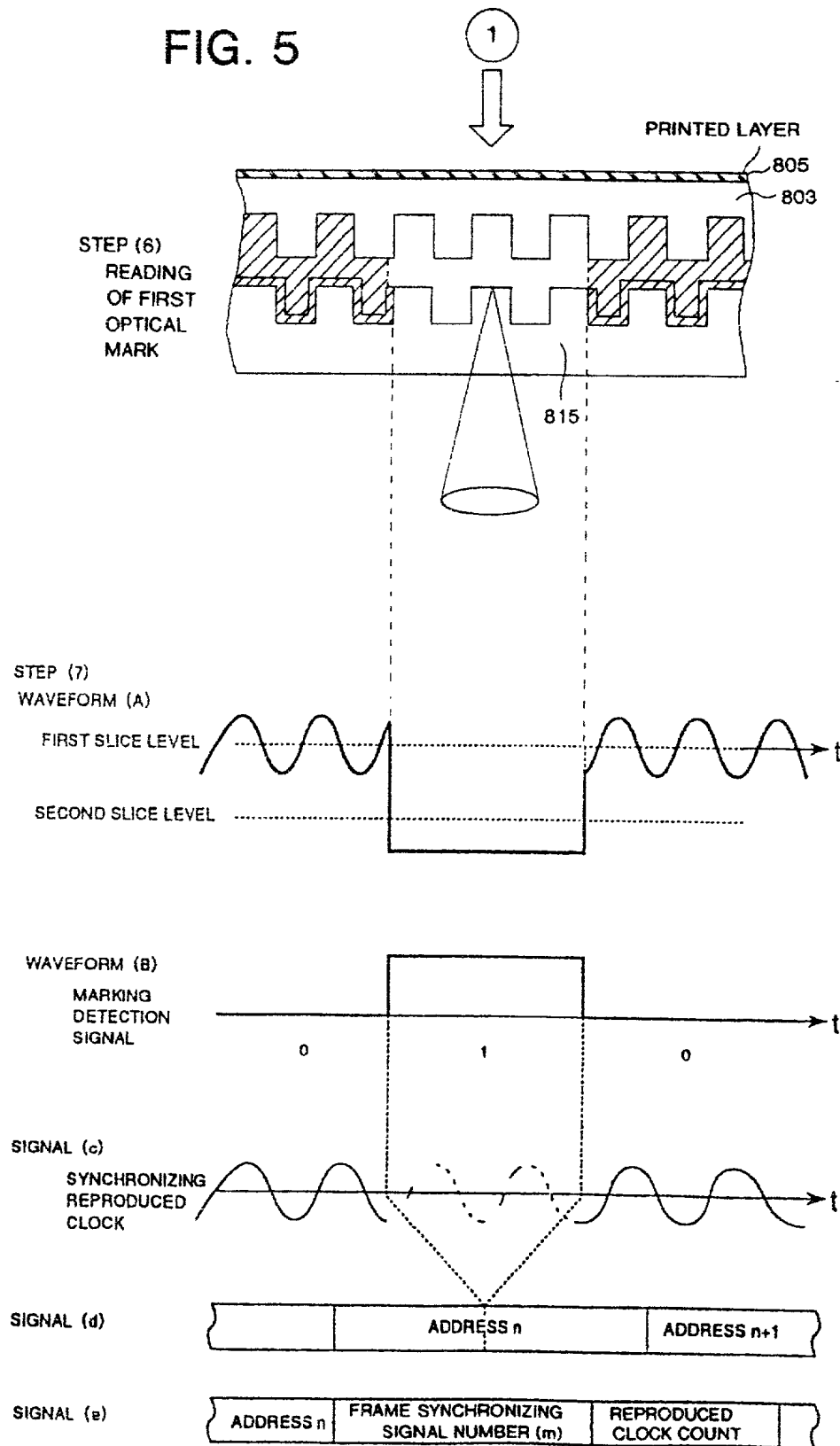


FIG. 4

FIG. 5



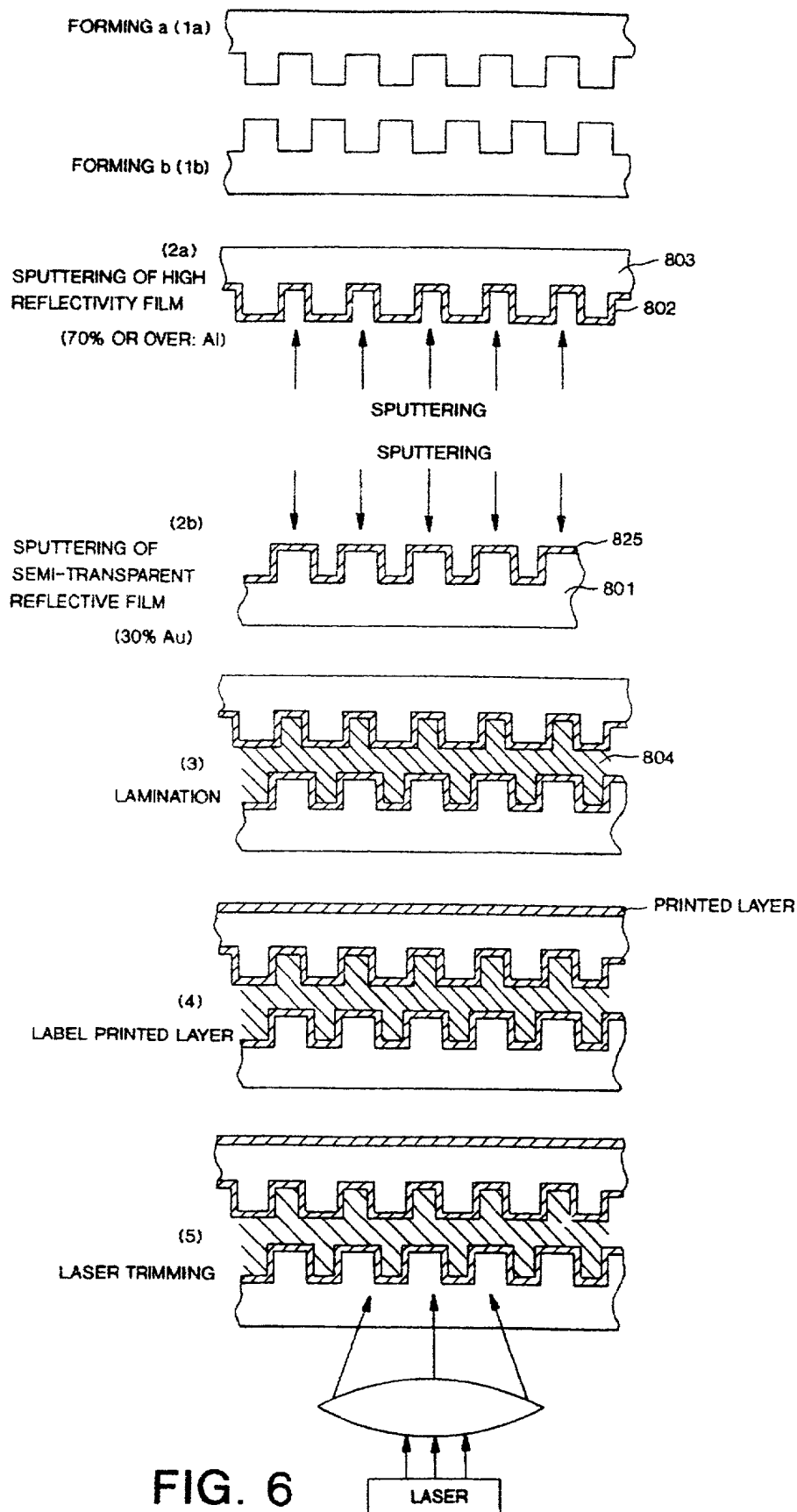
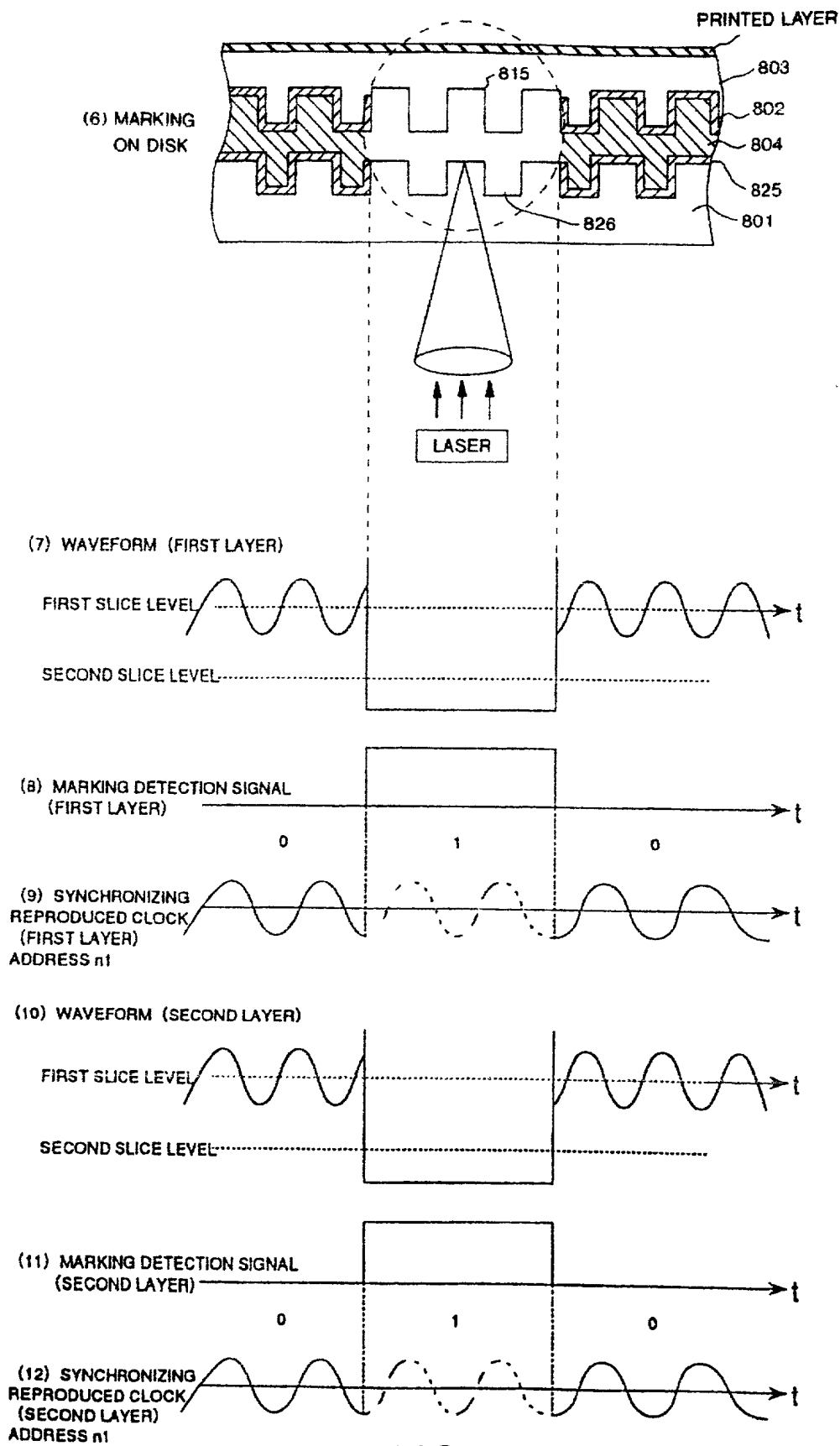


FIG. 6



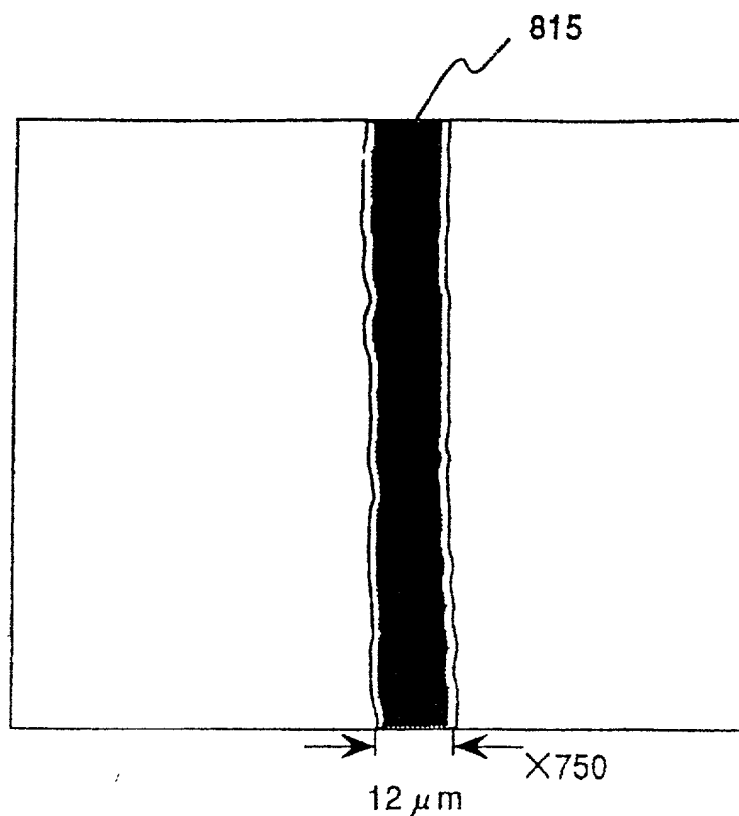


FIG. 8A

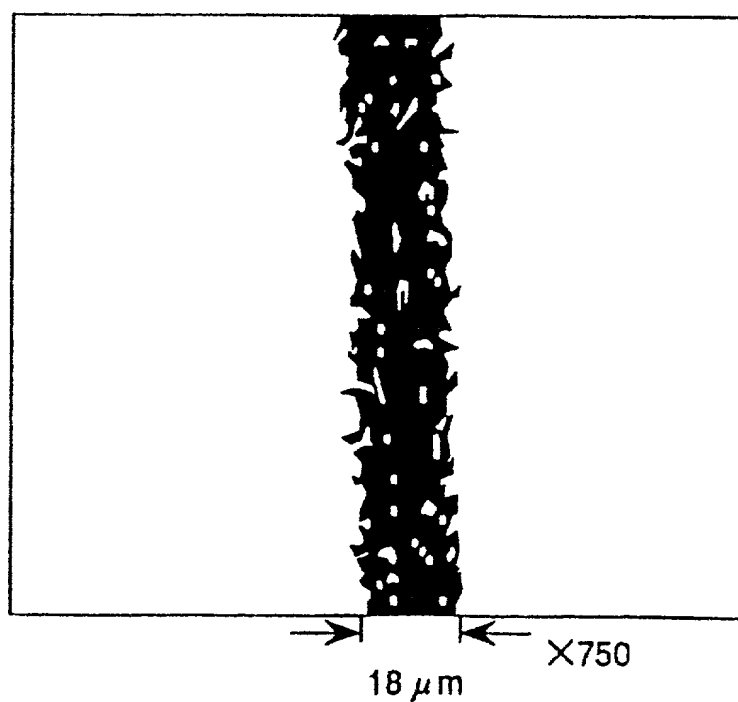
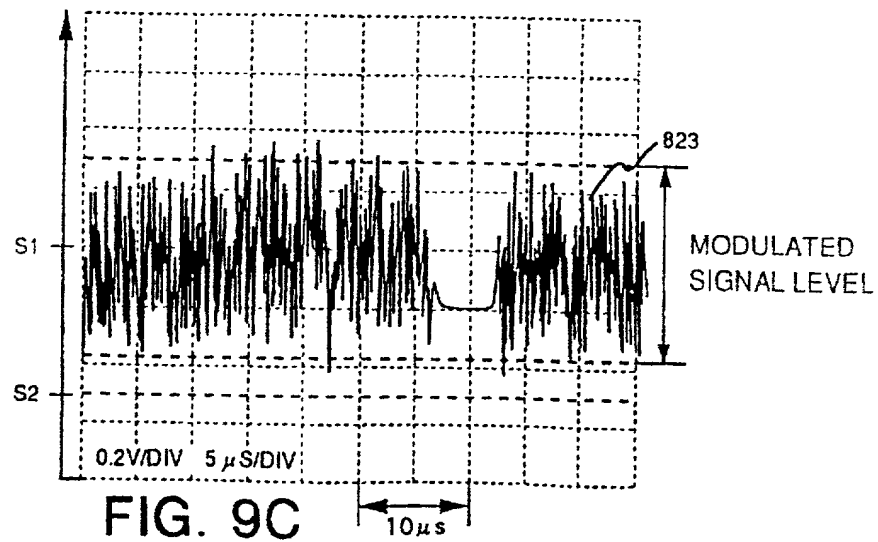
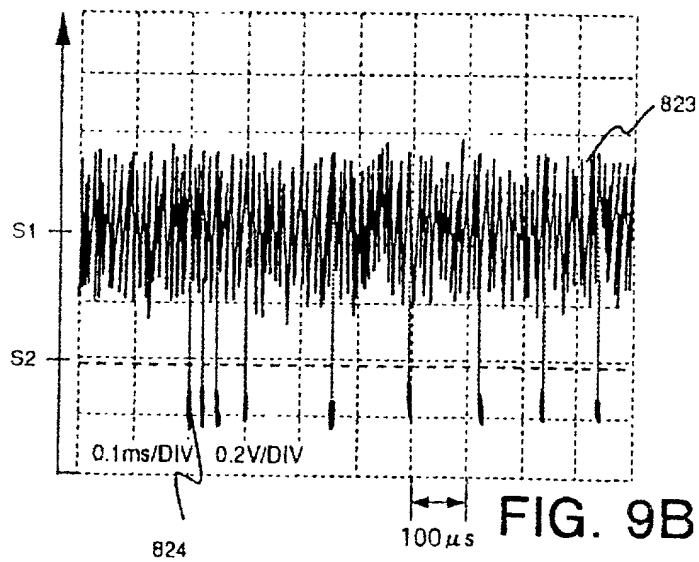
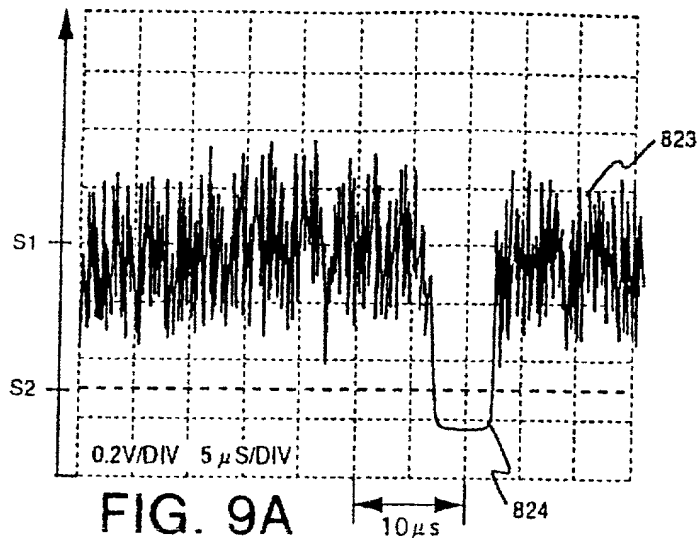


FIG. 8B



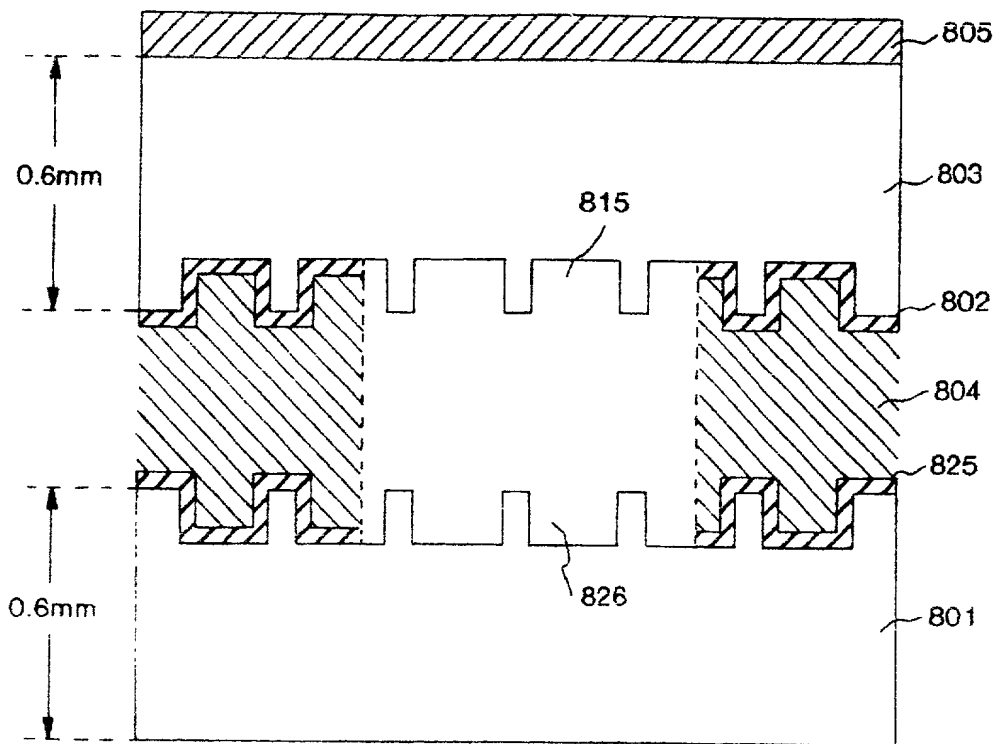


FIG. 10A

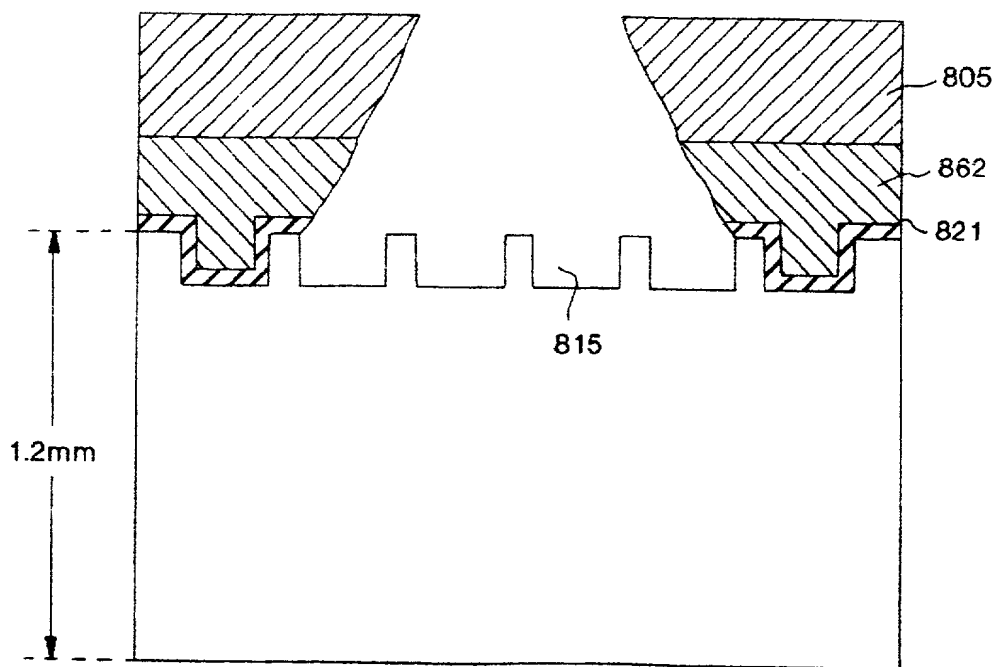


FIG. 10B

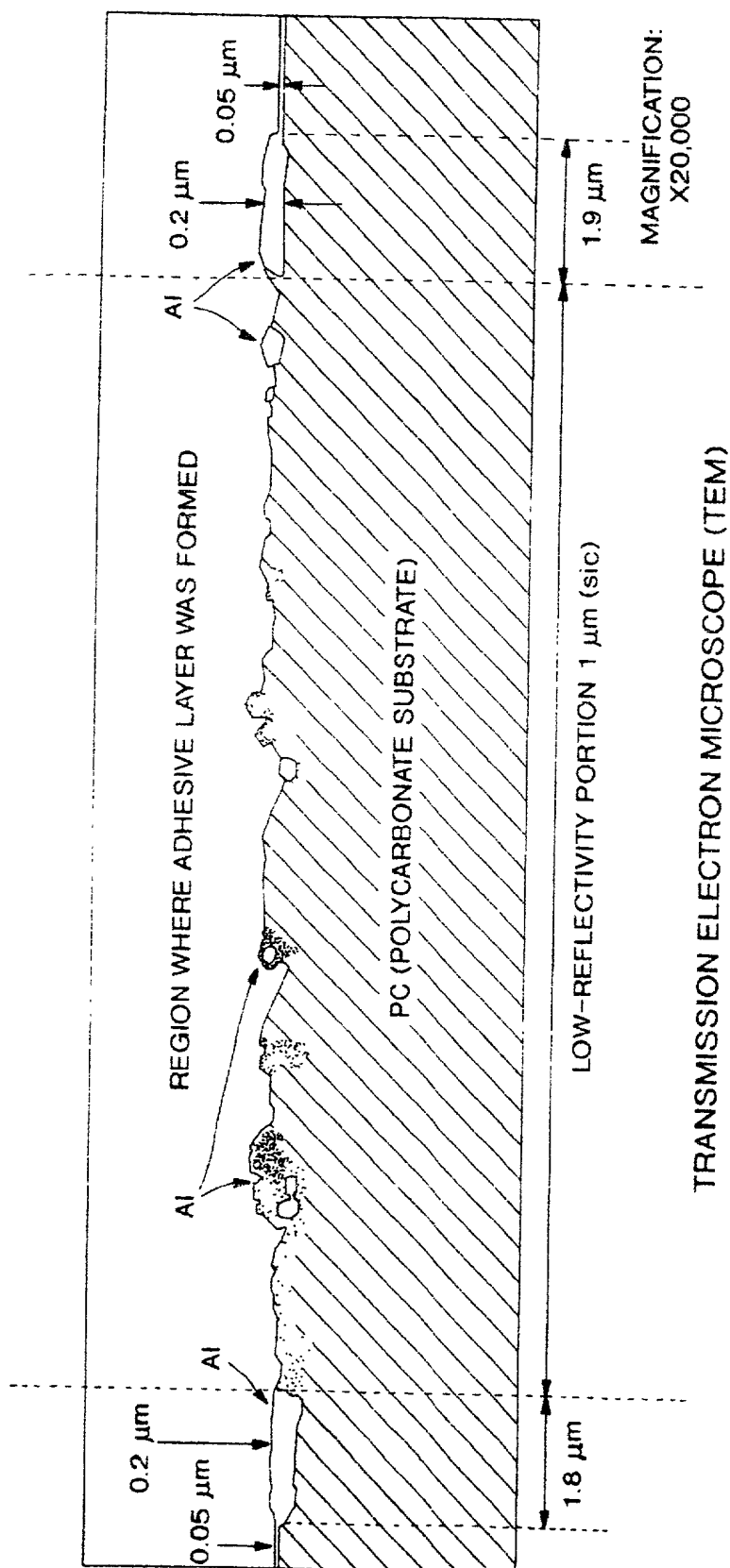


FIG. 11

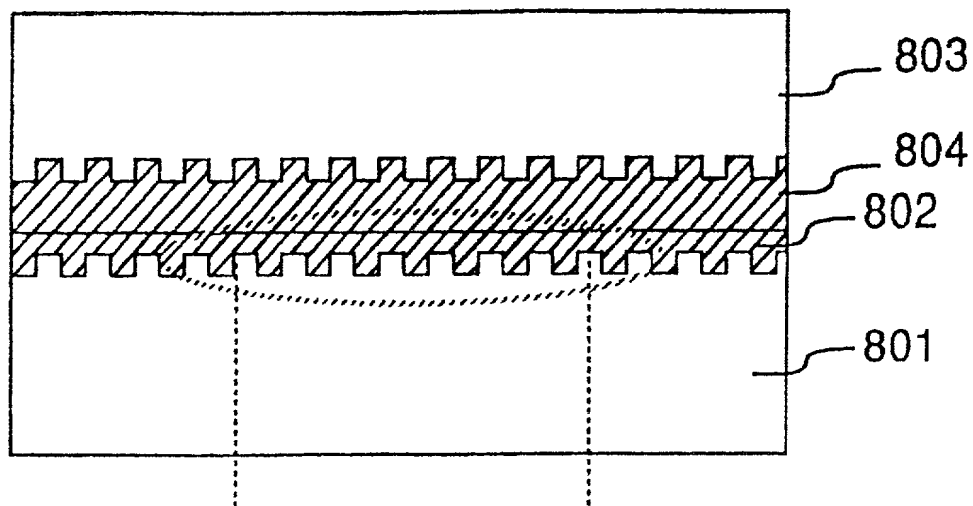


FIG. 12A

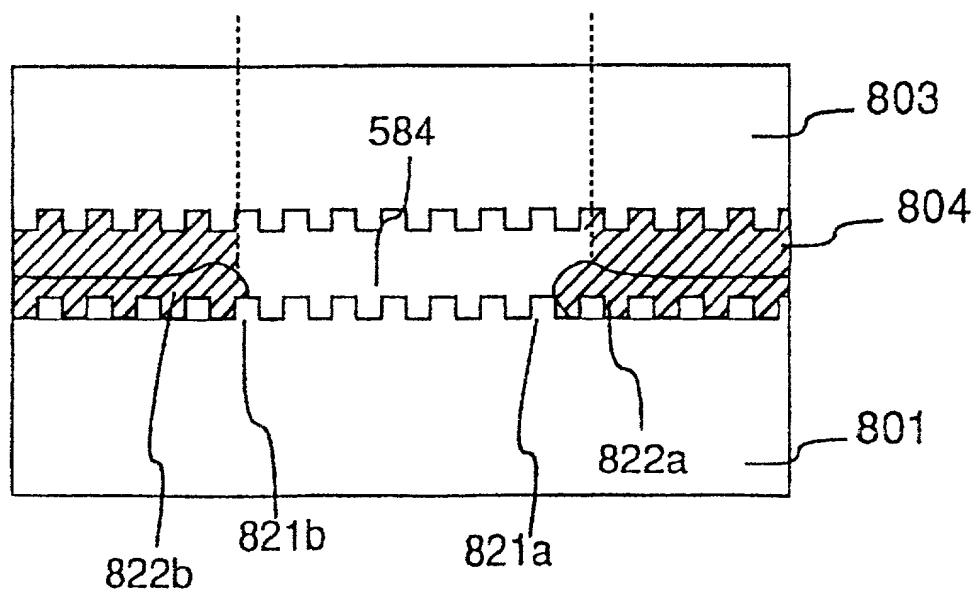
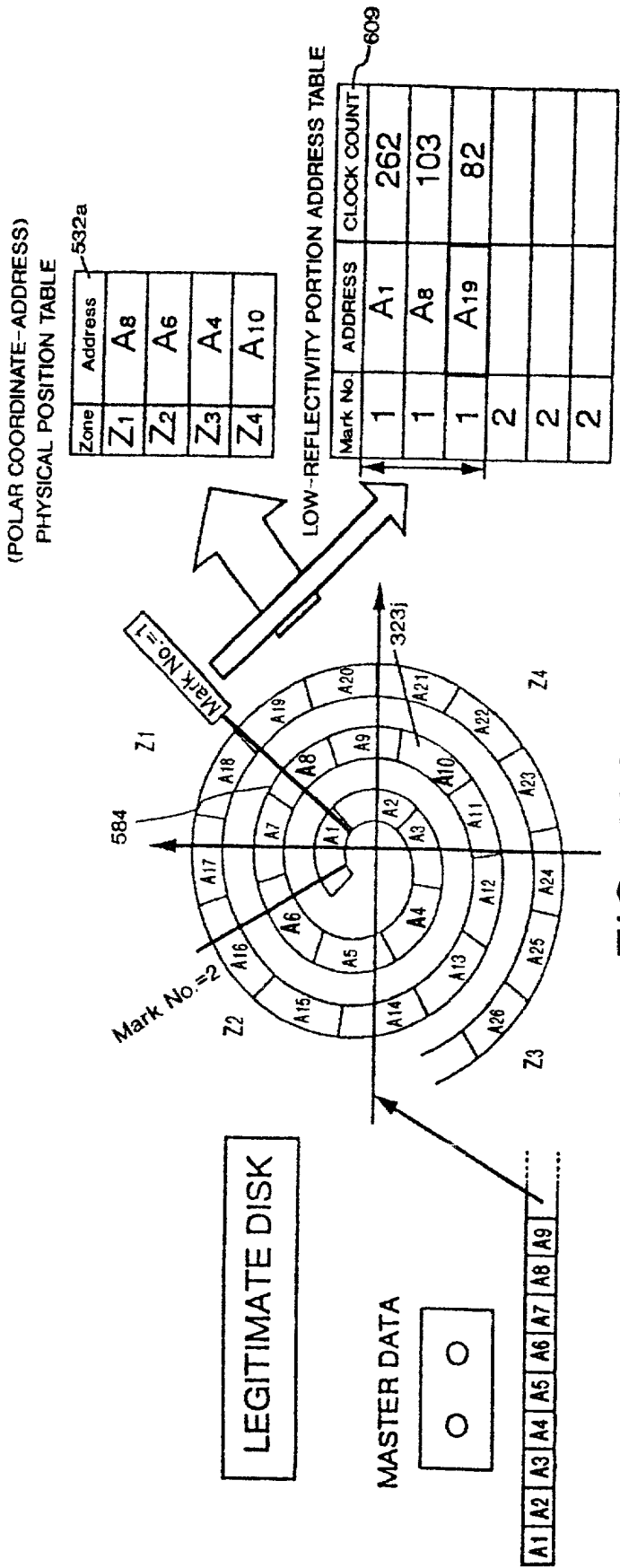


FIG. 12B



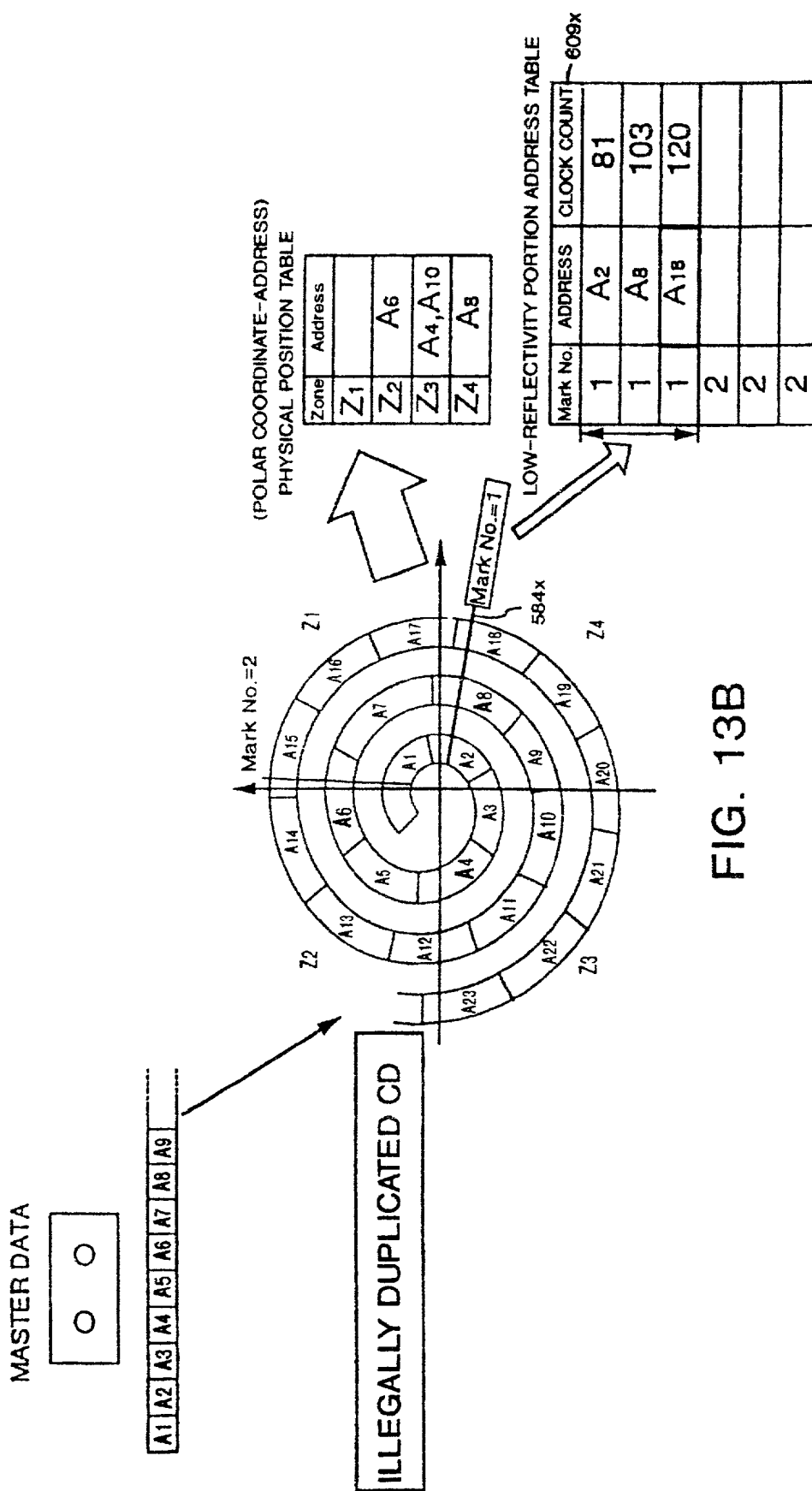


FIG. 13B

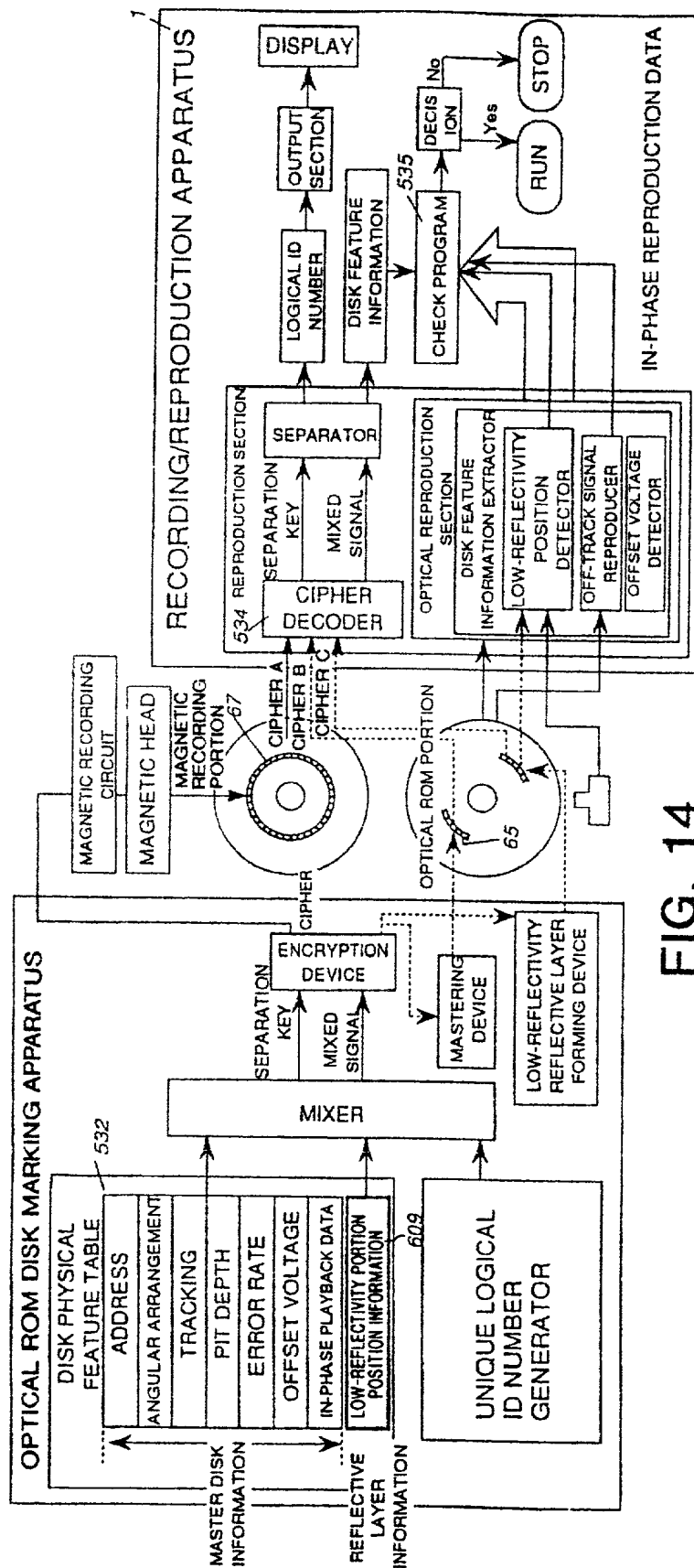


FIG. 14

FIG. 15

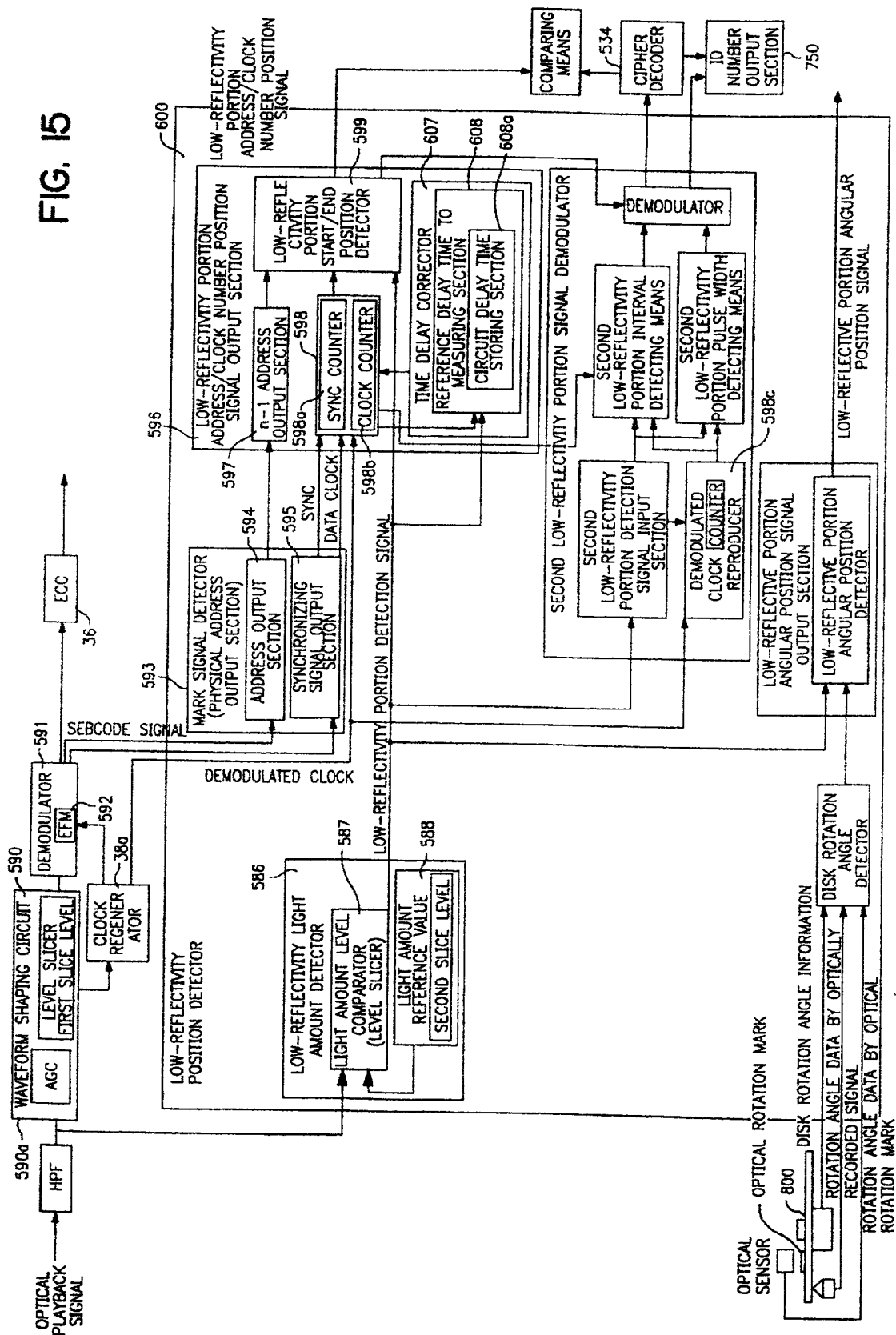


FIG. 16

(1) CROSS SECTION OF OPTICAL DISK

(2) REFLECTED LIGHT
SIGNAL

(3) Envelope

(4) REPRODUCED SIGNAL

(5) LOW-REFLECTIVITY LIGHT DETECTION SIGNAL

(6) CLOCK SIGNAL

Track No. To PR

(7) ADDRESS NUMBER AND CLOCK NUMBER

Address A n-1

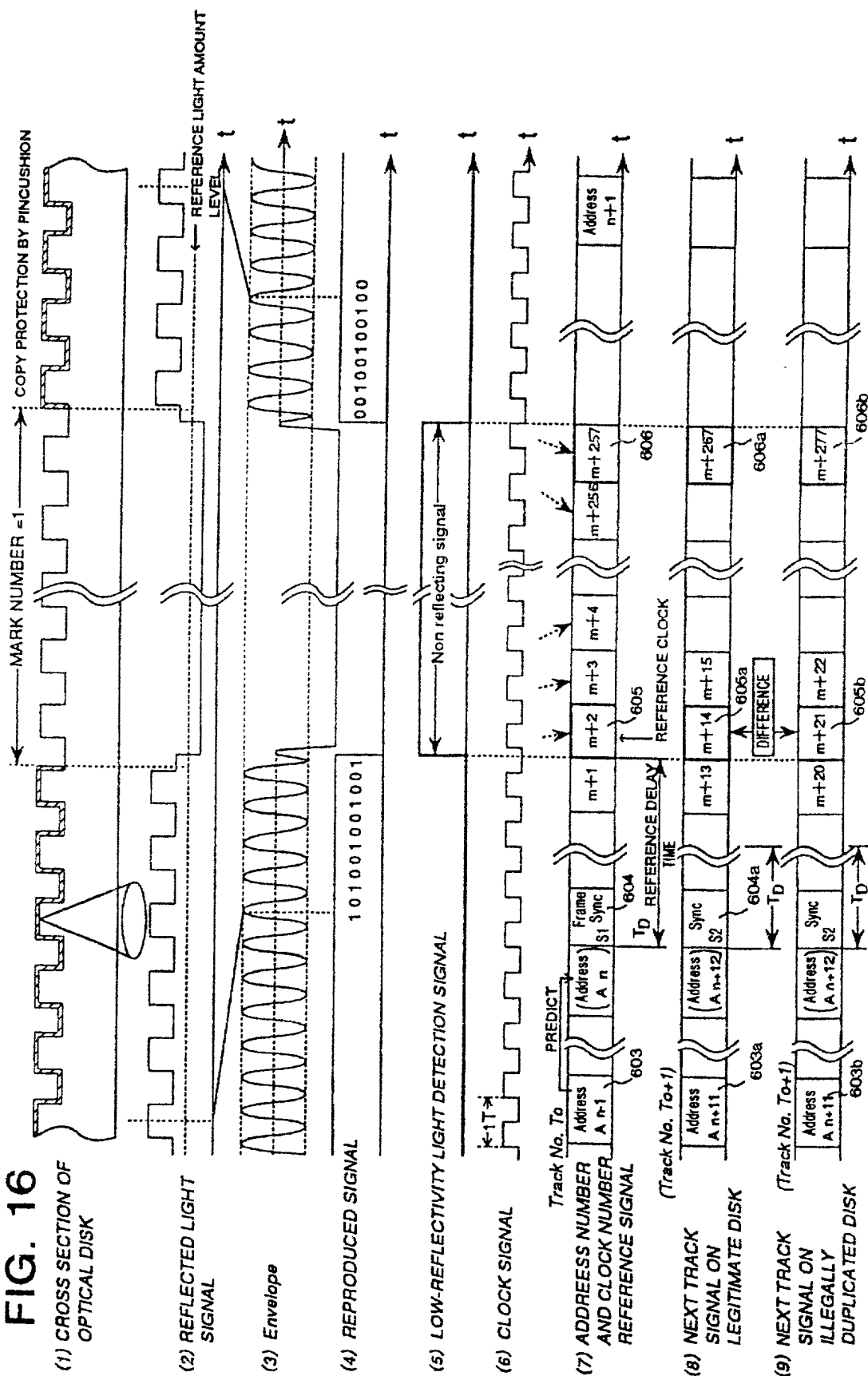
REFERENCE SIGNAL

803

(Track No. To+1)

(8) NEXT TRACK
SIGNAL ON
LEGITIMATE DISK

(9) NEXT TRACK
SIGNAL ON
ILLEGALLY
DUPLICATED DISK



LEGITIMATE DISK

LOW-REFLECTIVITY PORTION ADDRESS TABLE

MARK NO.	START POSITION		END POSITION	
	ADDRESS	Sync No	ADDRESS	Sync No
1	A n	S1	n	
1	A n+12	S2	n+12	
1	A n+23	m+25	n+23	
:	:	:	:	
2	A n+1	m+15	n+1	
2	A n+13	m+85	n+13	
2	A n+24	m+68	n+24	
10	A n+9			
10				

PLANNING

ILLEGALLY DUPLICATED DISK

LOW-REFLECTIVITY PORTION ADDRESS TABLE

MARK NO.	START POSITION		END POSITION	
	ADDRESS	Sync No	ADDRESS	Sync No
1	n	S1	n	
1	n+12	S2	n+12	
1	n+22	m+4	n+22	
:	:	:	:	
2	n+1	m+36	n+1	
2	n+13	m+120	n+13	
2	n+25		n+25	
10	n+9			
10				

FIG. 17

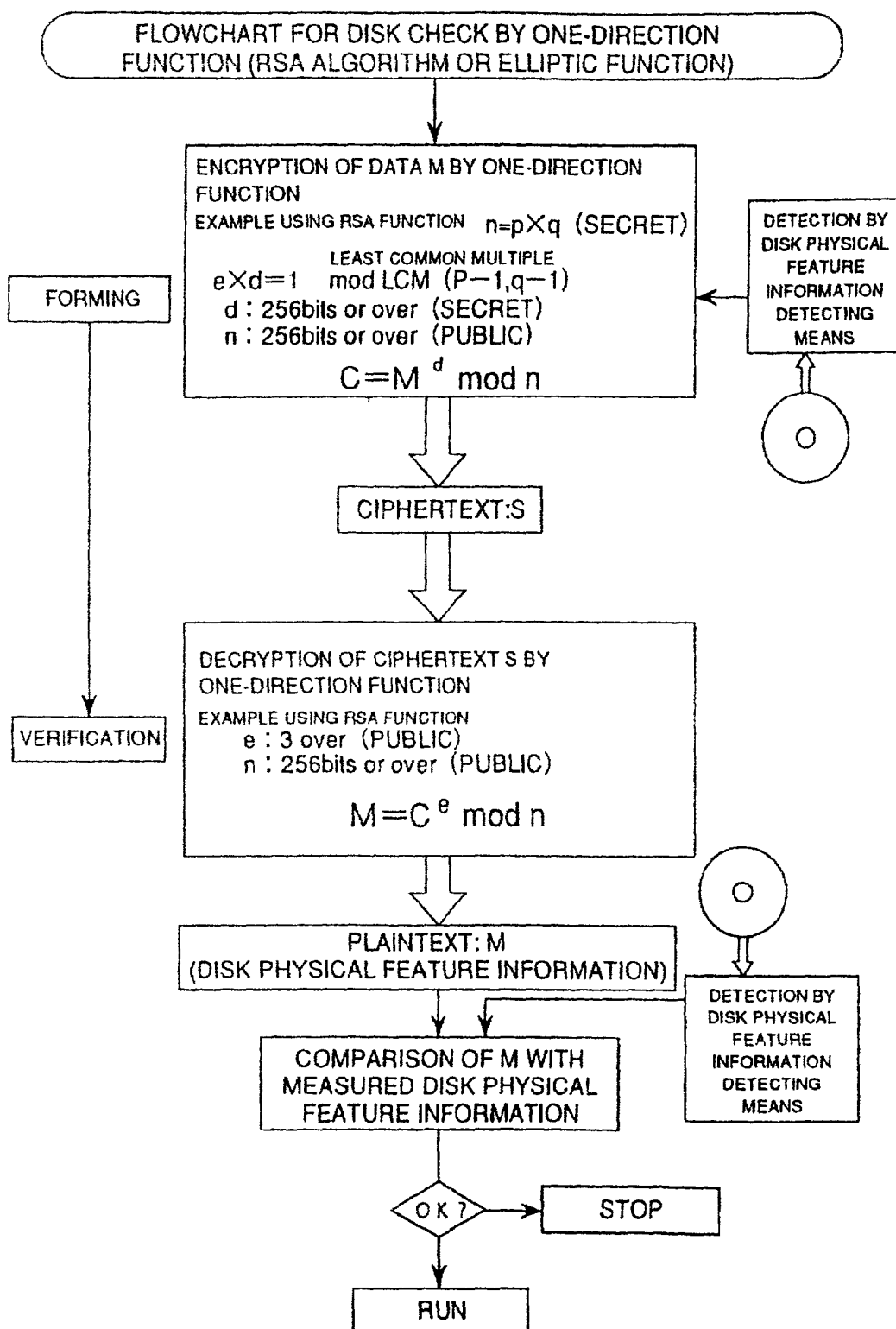
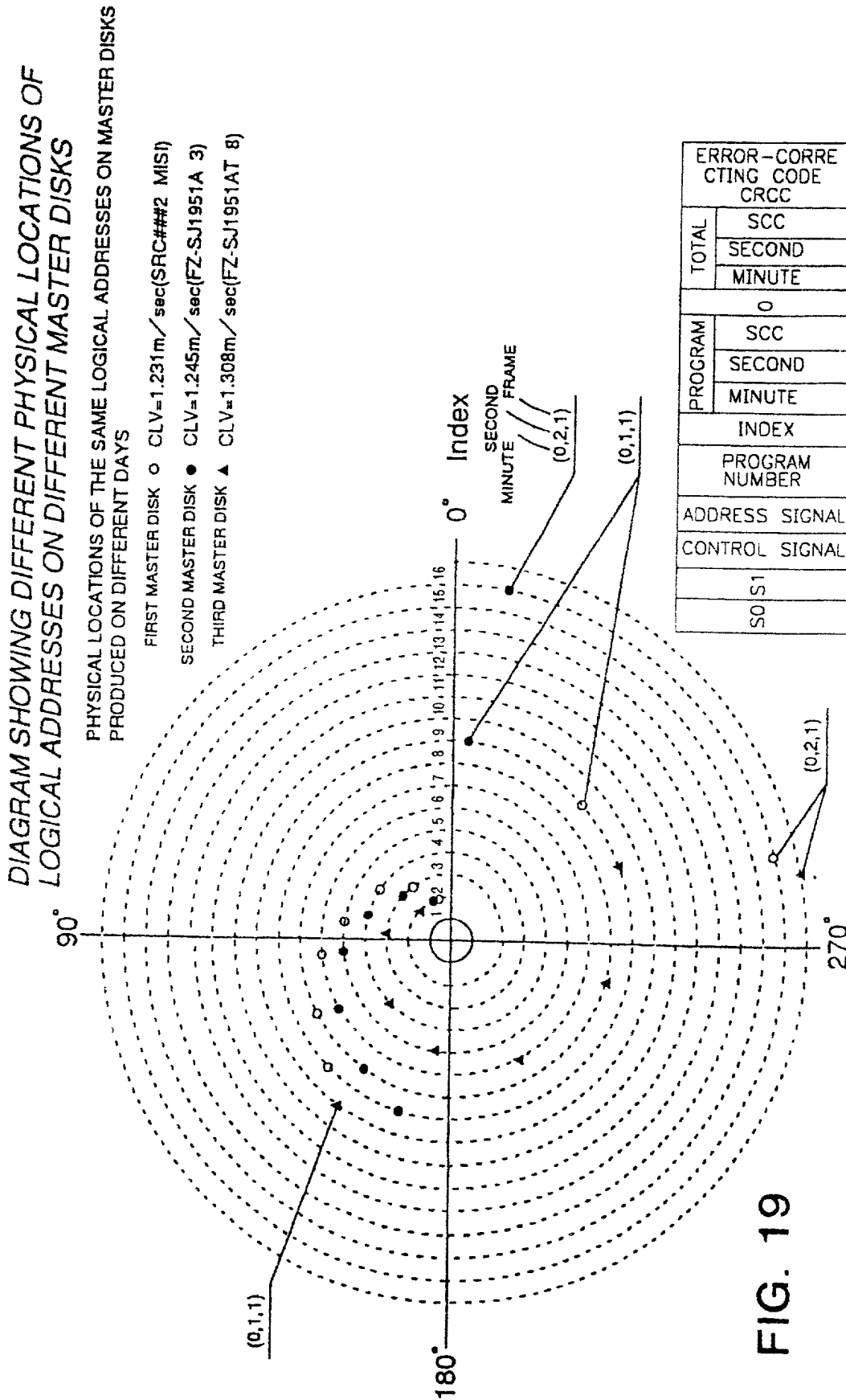


FIG. 18



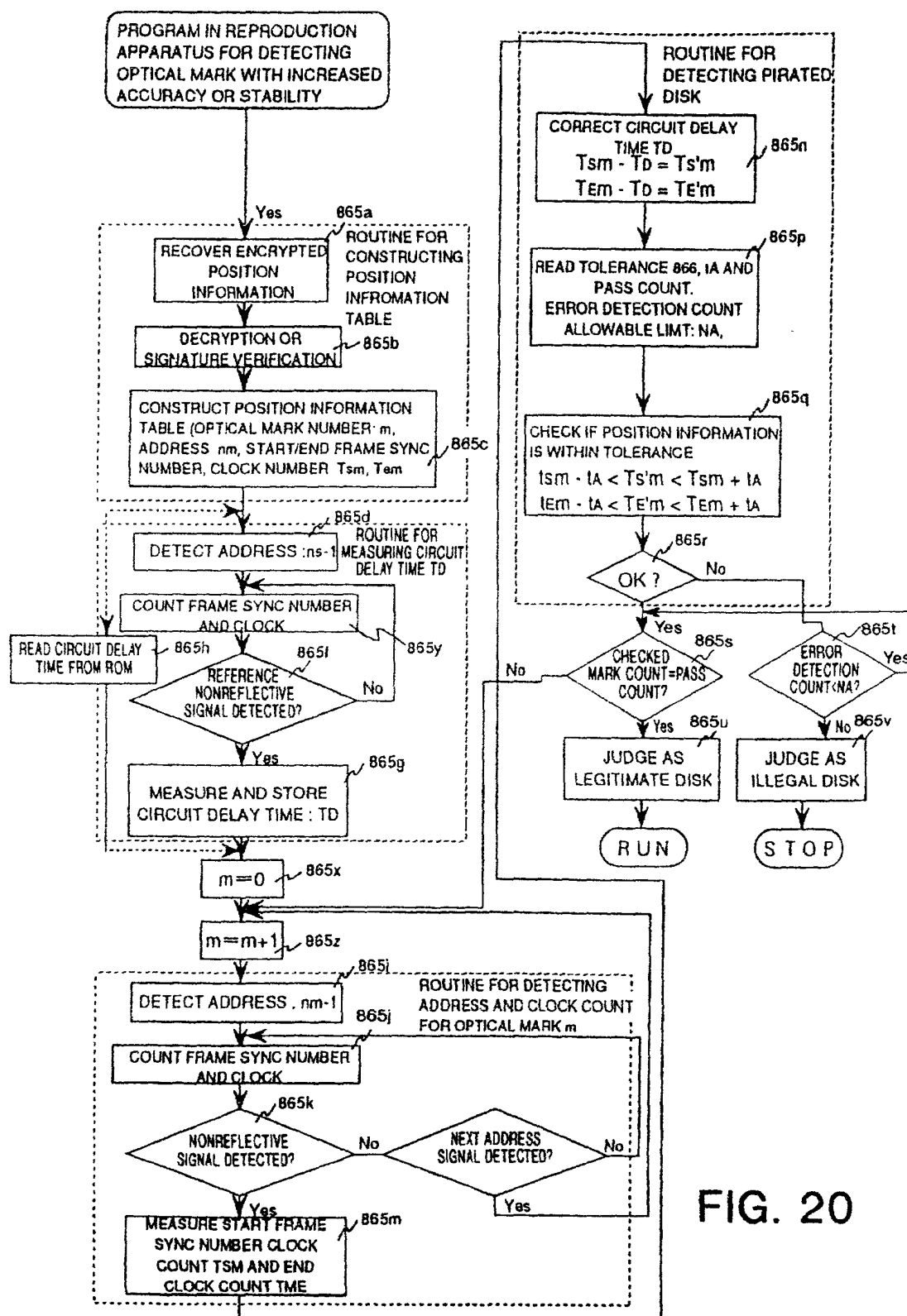


FIG. 20

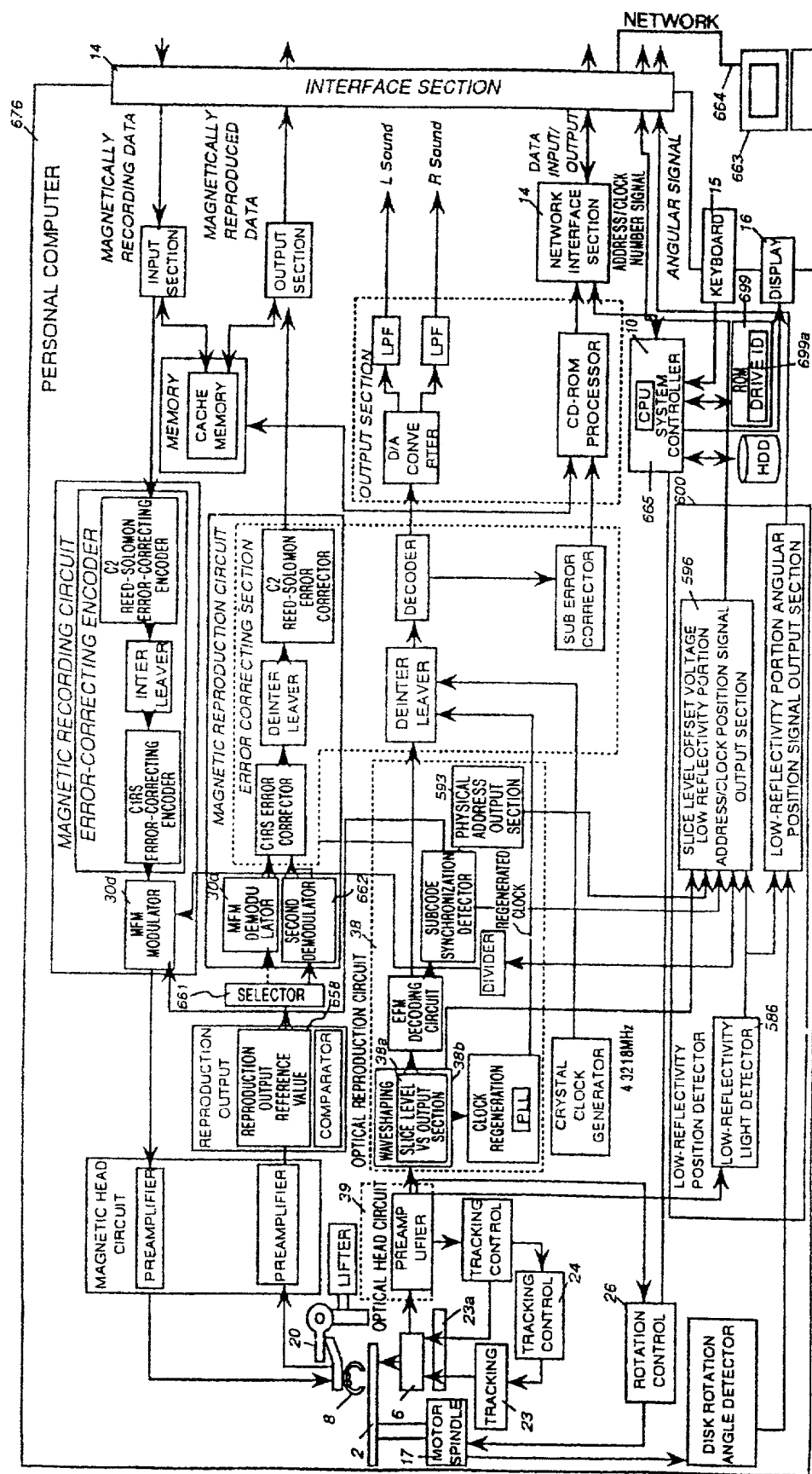
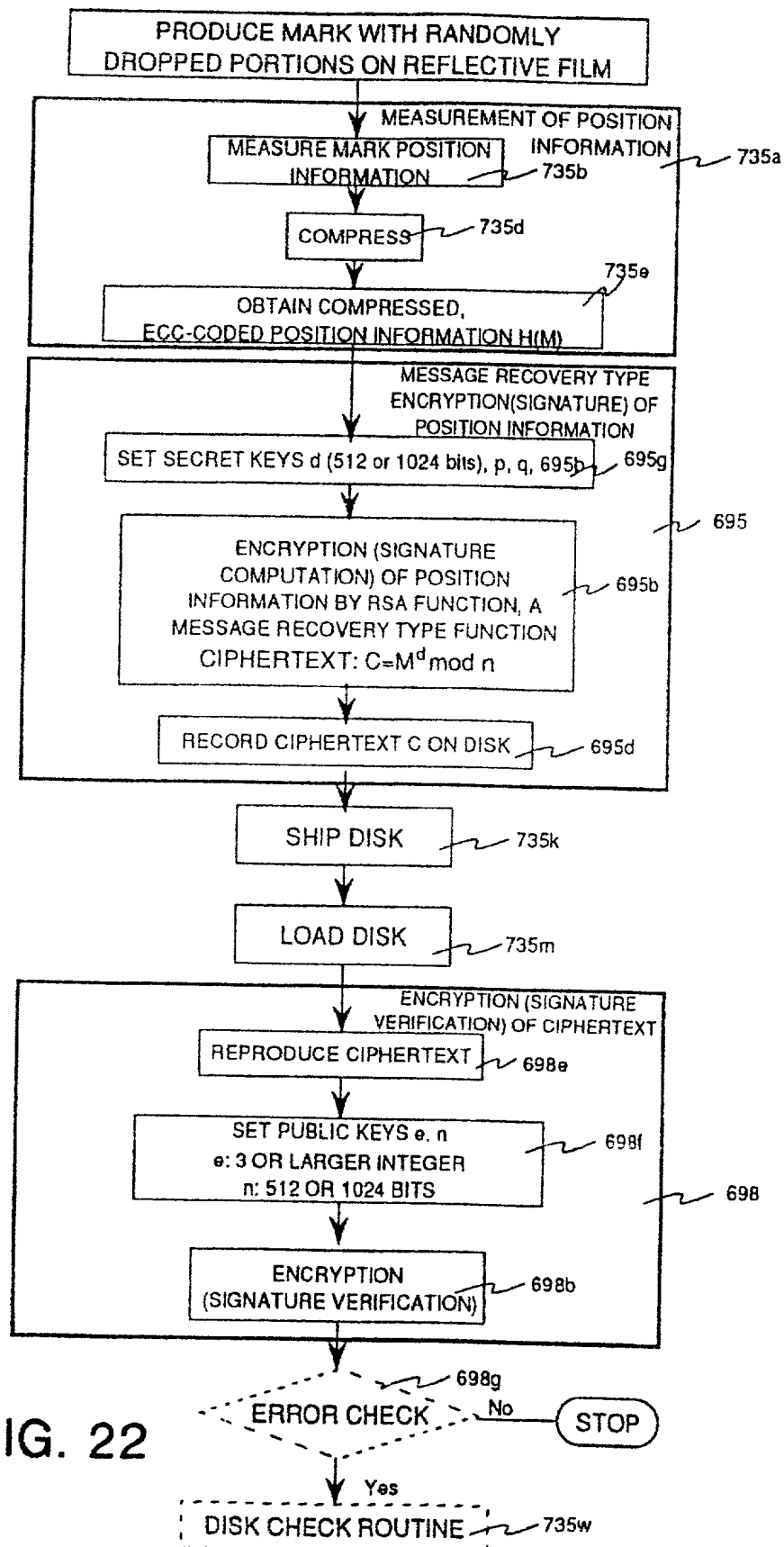


FIG. 21



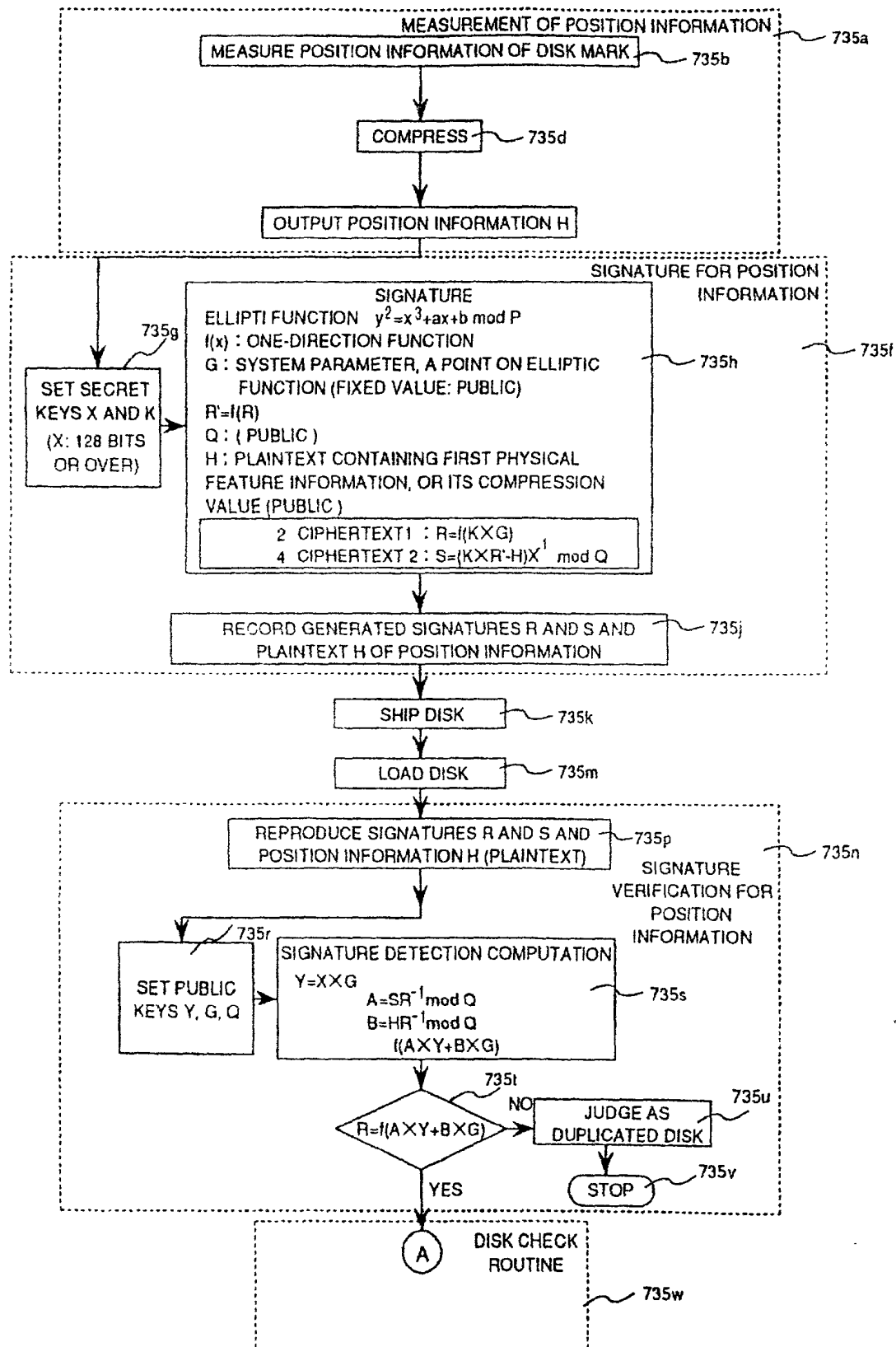


FIG. 23

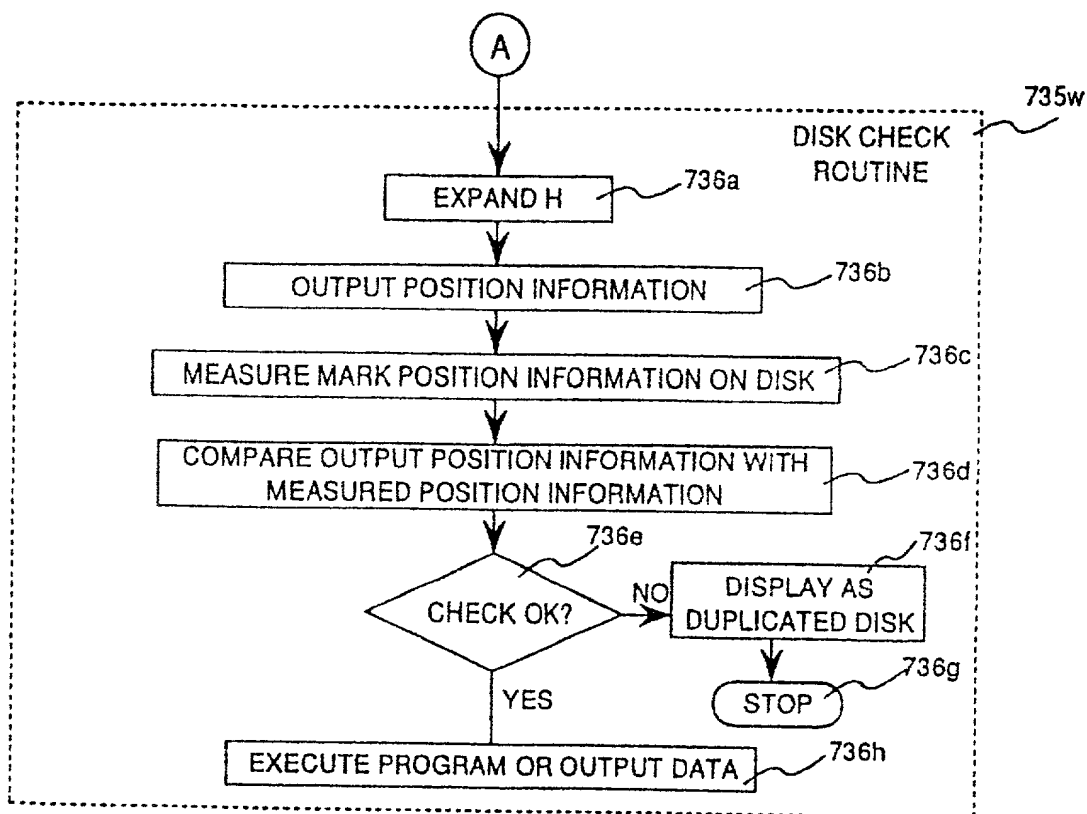


FIG. 24

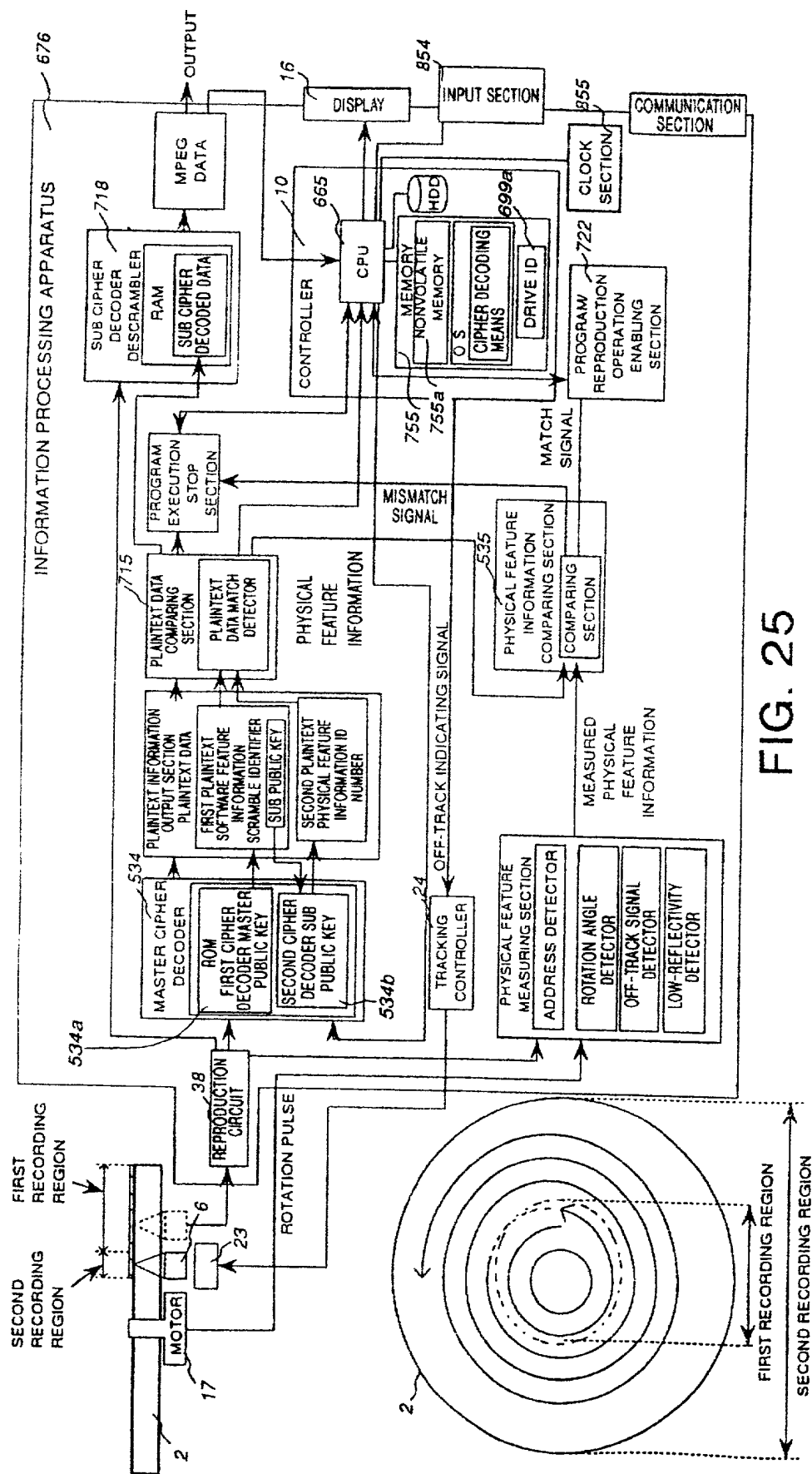
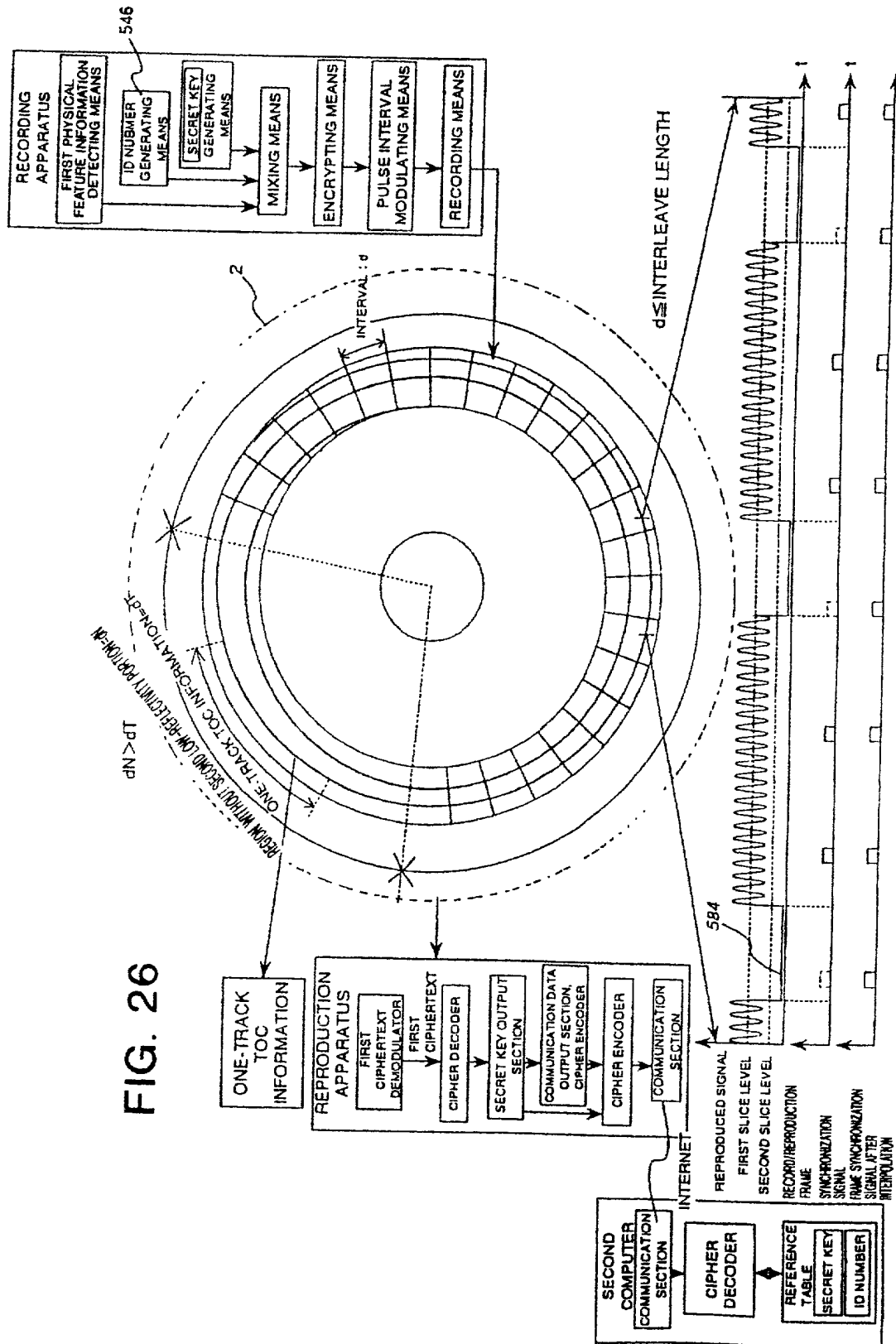
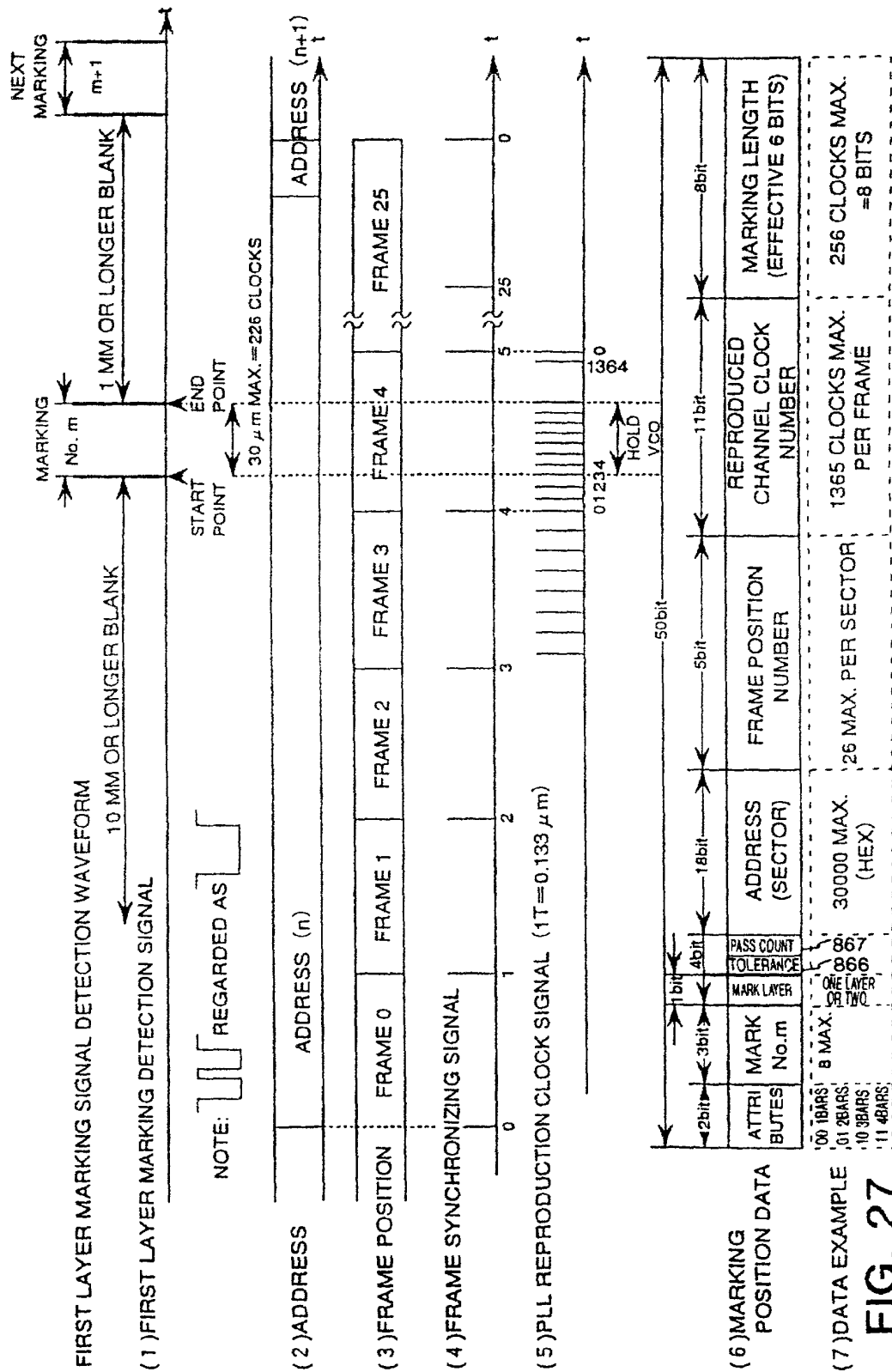
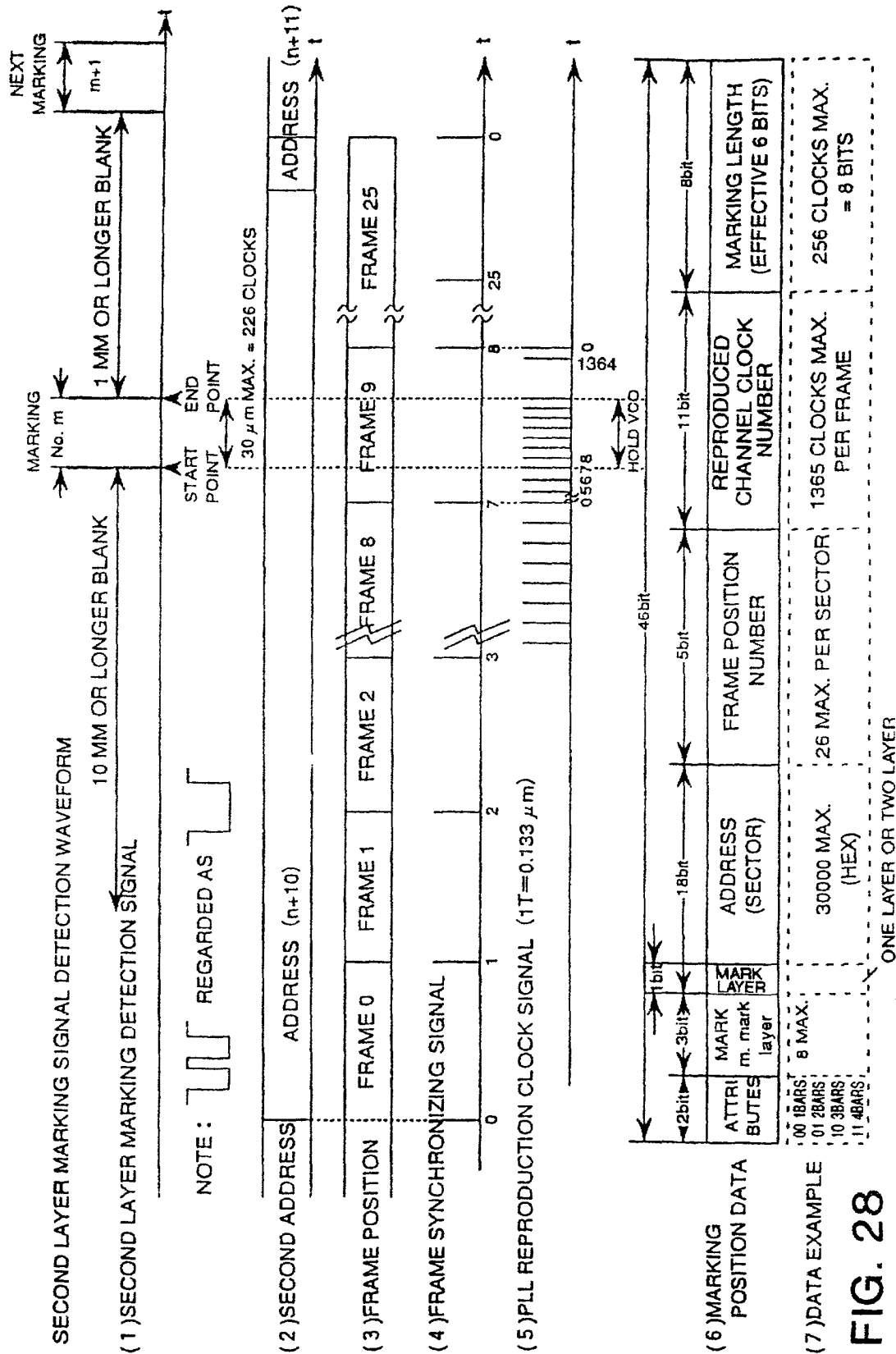


FIG. 25

FIG. 26







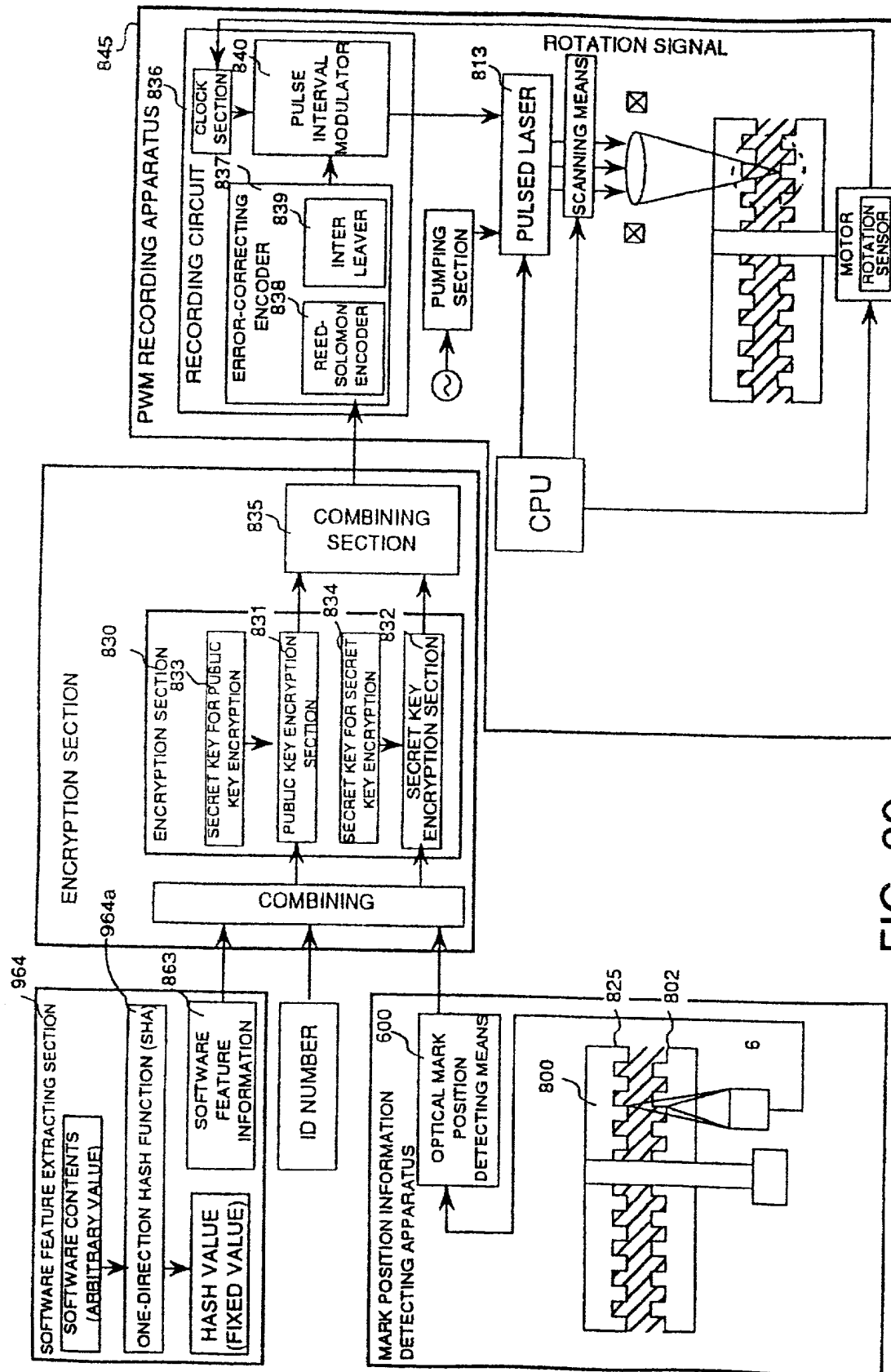
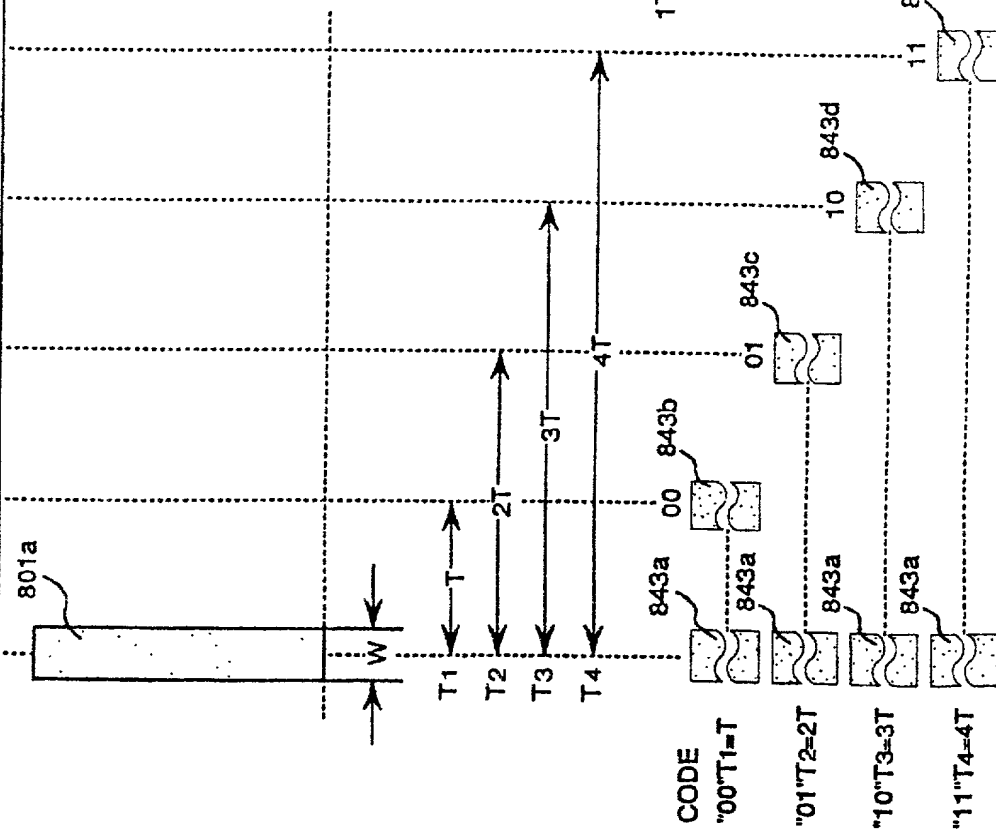


FIG. 29

CODE CLASSIFIED BY PULSE INTERVAL, 4-VALUE PWM RECORDING

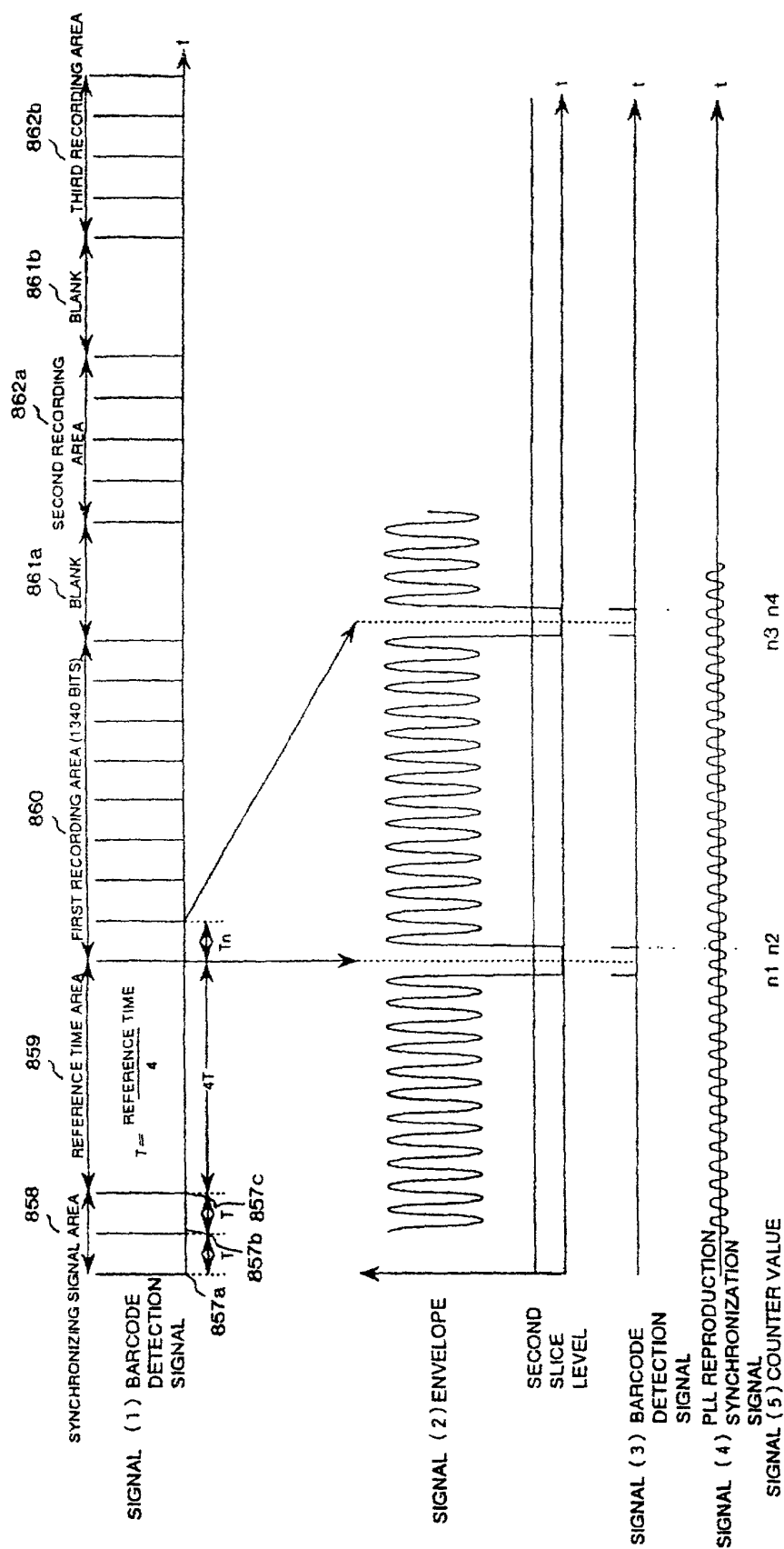
CODE	00	01	10	11
------	----	----	----	----



BARCODE LINE WIDTH VERSUS RECORDING DENSITY 842

LINE WIDTH W (μm)	PERIOD T (μm)	RECORDING DENSITY $\mu\text{m/bit}$	MAXIMUM RECORDING CAPACITY ONE RING	LENGTH OF 1 KBITs mm
1 μm	2 μm	2.55 μm	56Kbit	2.5mm
3 μm	6 μm	7.5 μm	28.2Kbit	5mm
5 μm	10 μm	12.5 μm	11.2Kbit	12.5mm
10 μm	20 μm	25 μm	5.6Kbit	25mm
20 μm	40 μm	50 μm	2.82Kbit	50mm

FIG. 30



1T:00、2T:01、3T:10、4T:11

$$T_n = \text{PULSE INTERVAL} = \frac{n^3 + n}{2} - \frac{n^1 + n^2}{2}$$

SIGNAL (6) DECODED VALUE
(PROCESSED BY
8-BIT
MICROCOMPUTER)

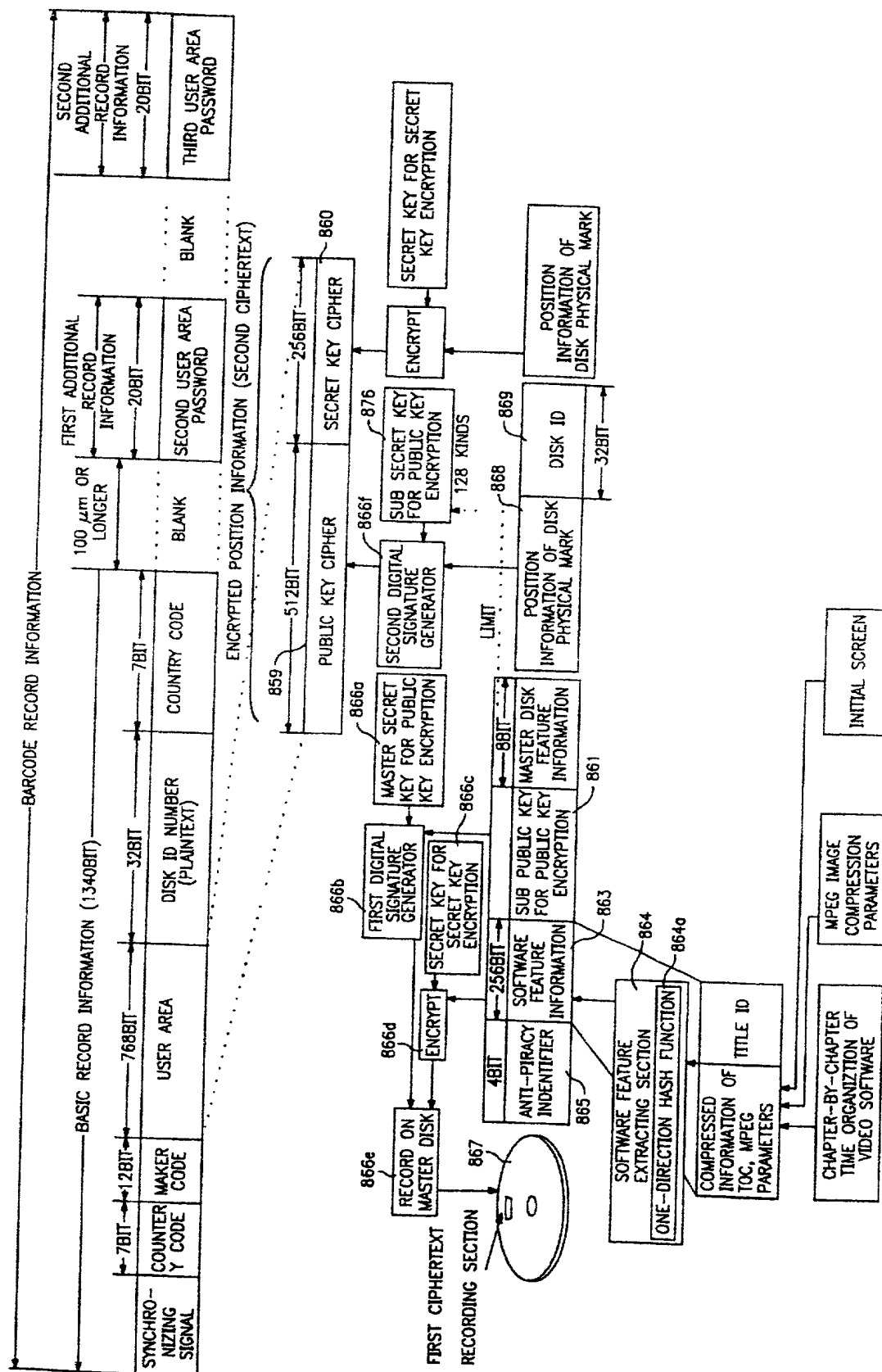


FIG. 32

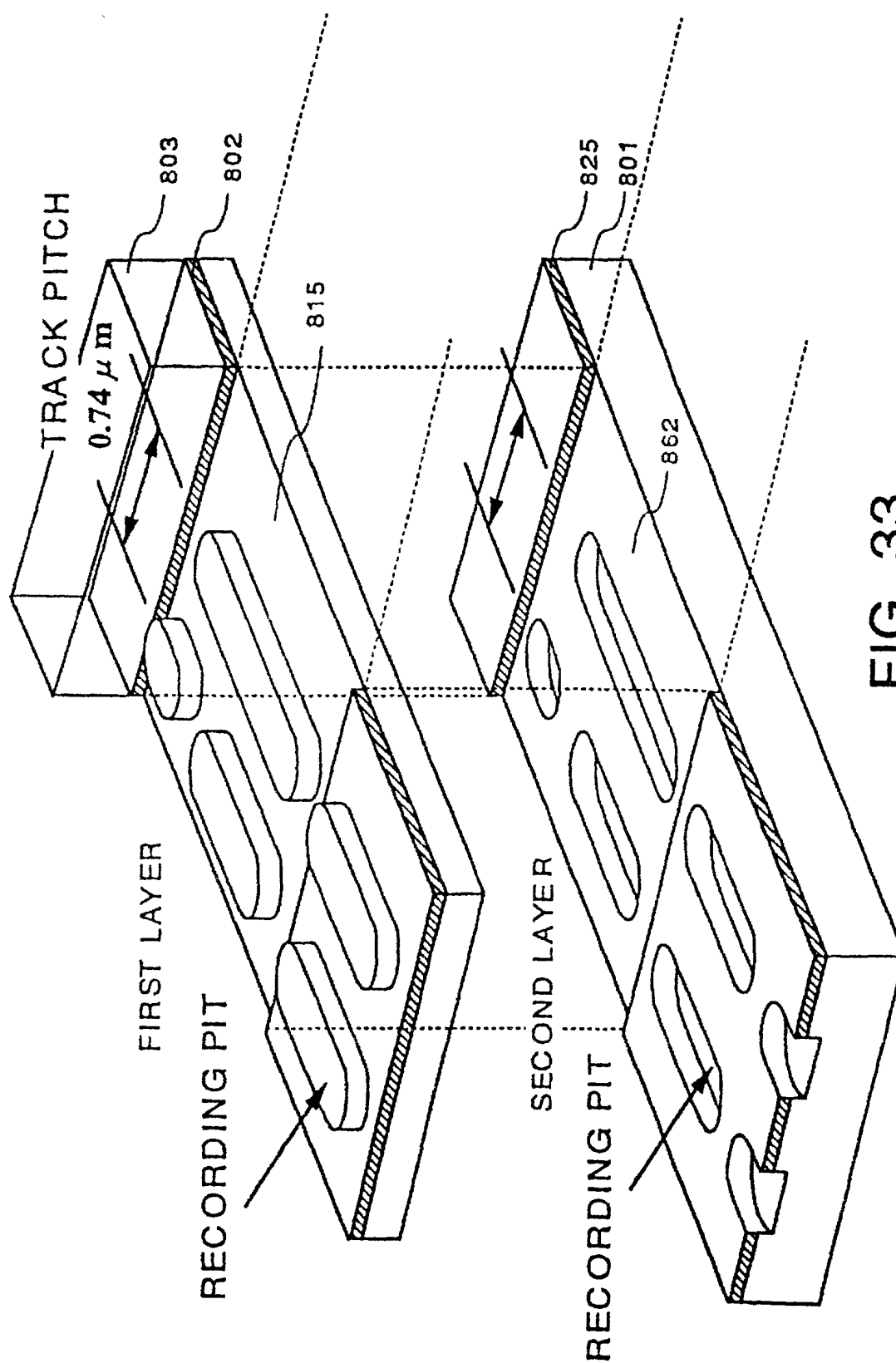
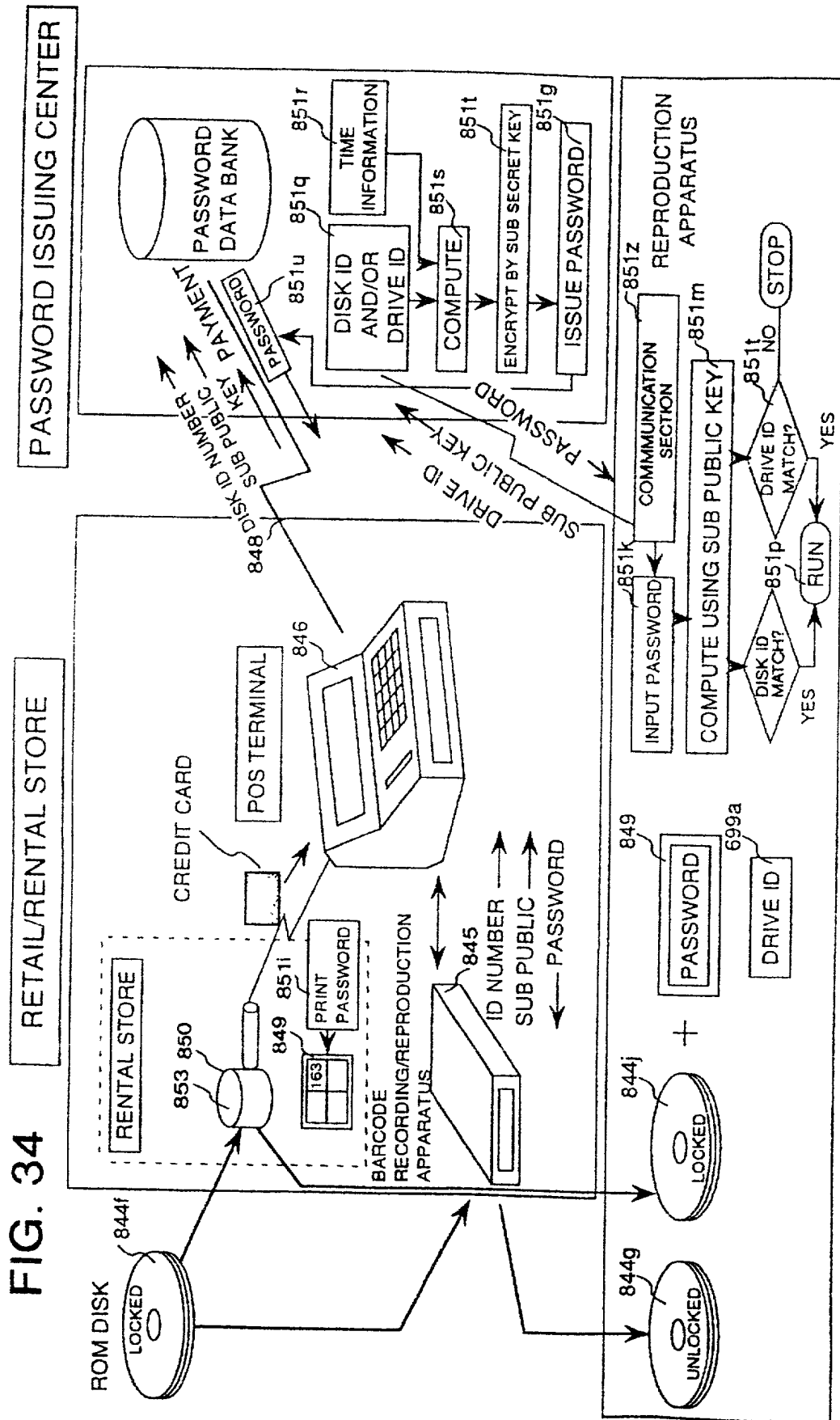


FIG. 33



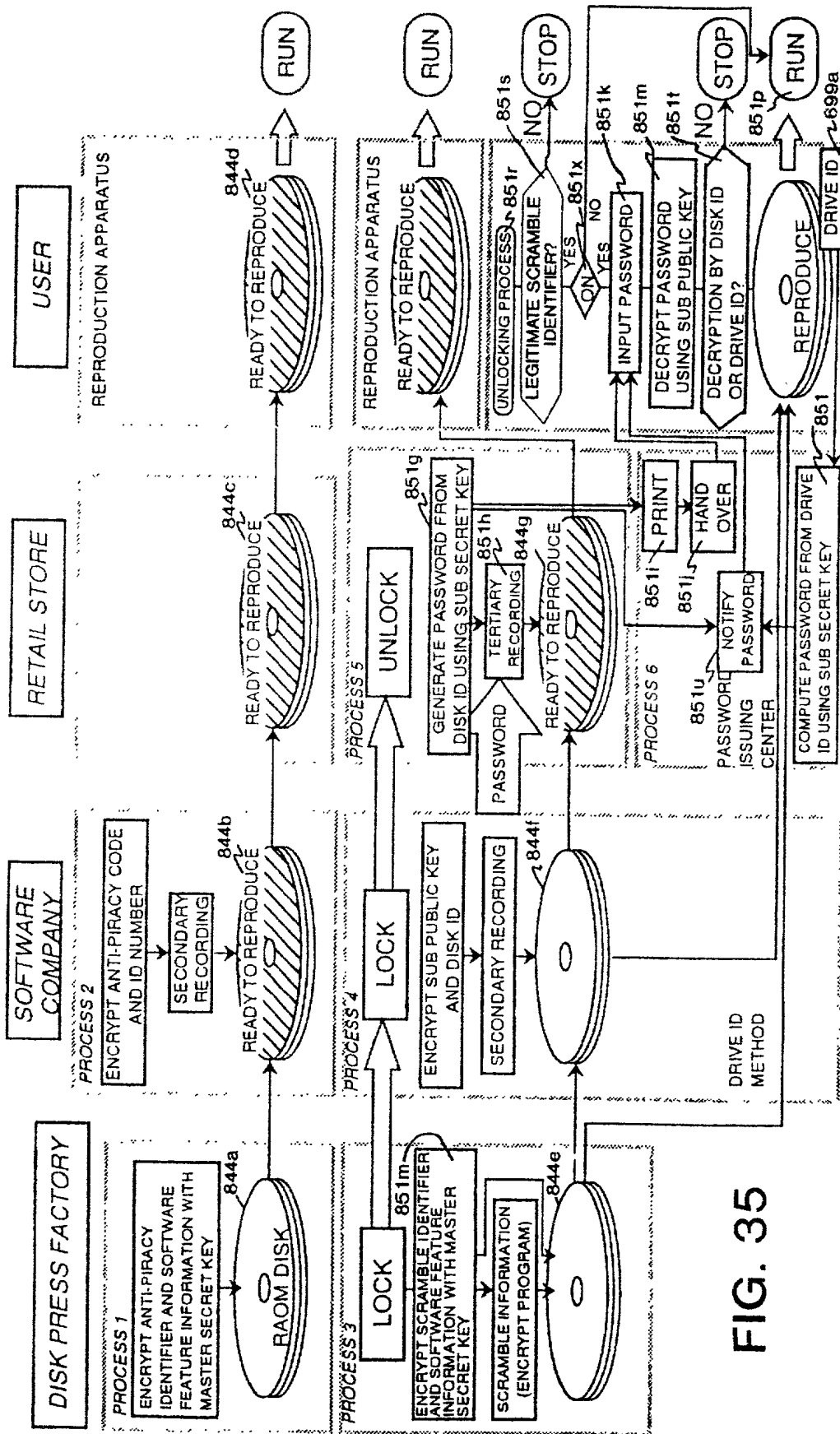


FIG. 35

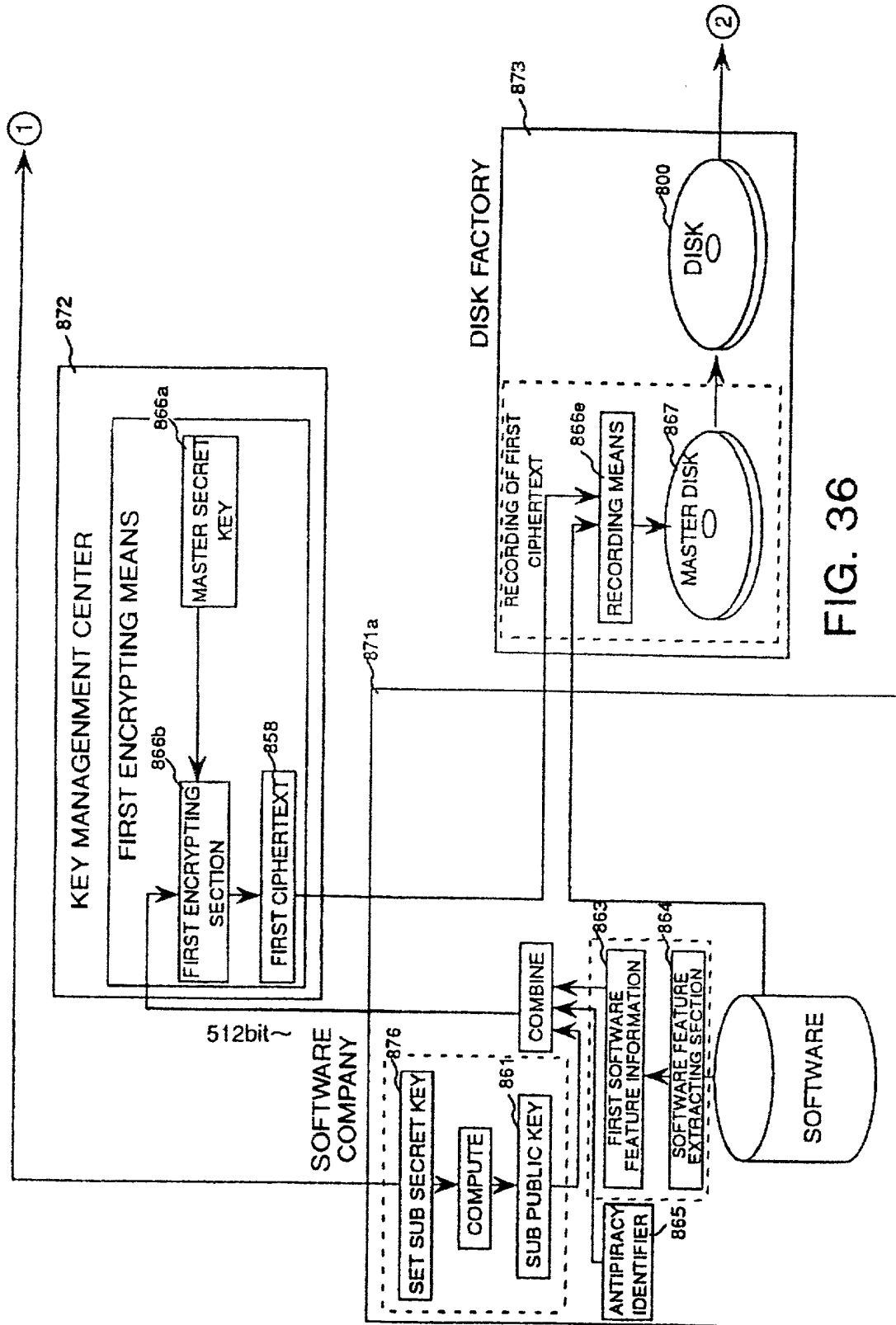


FIG. 36

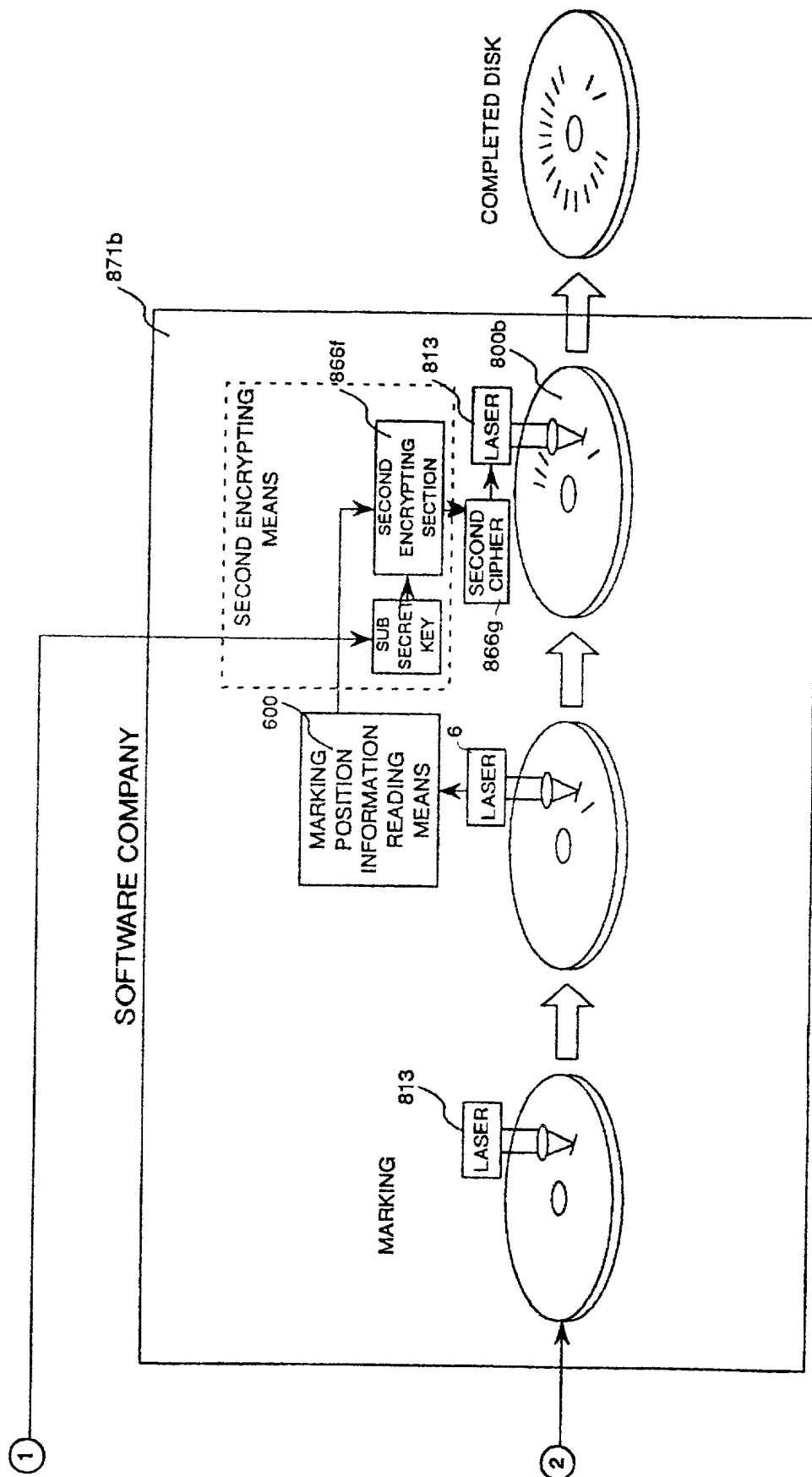


FIG. 37

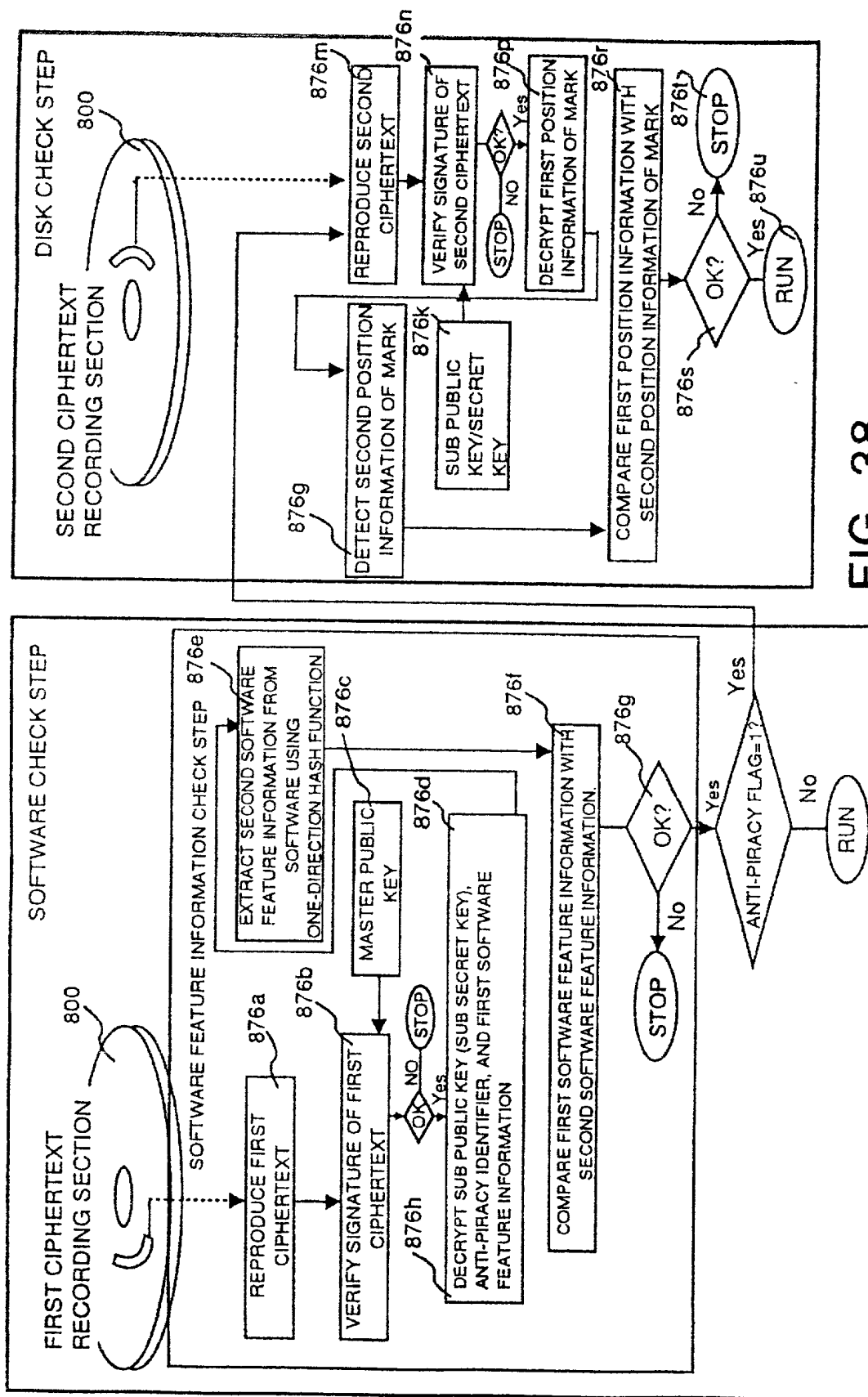
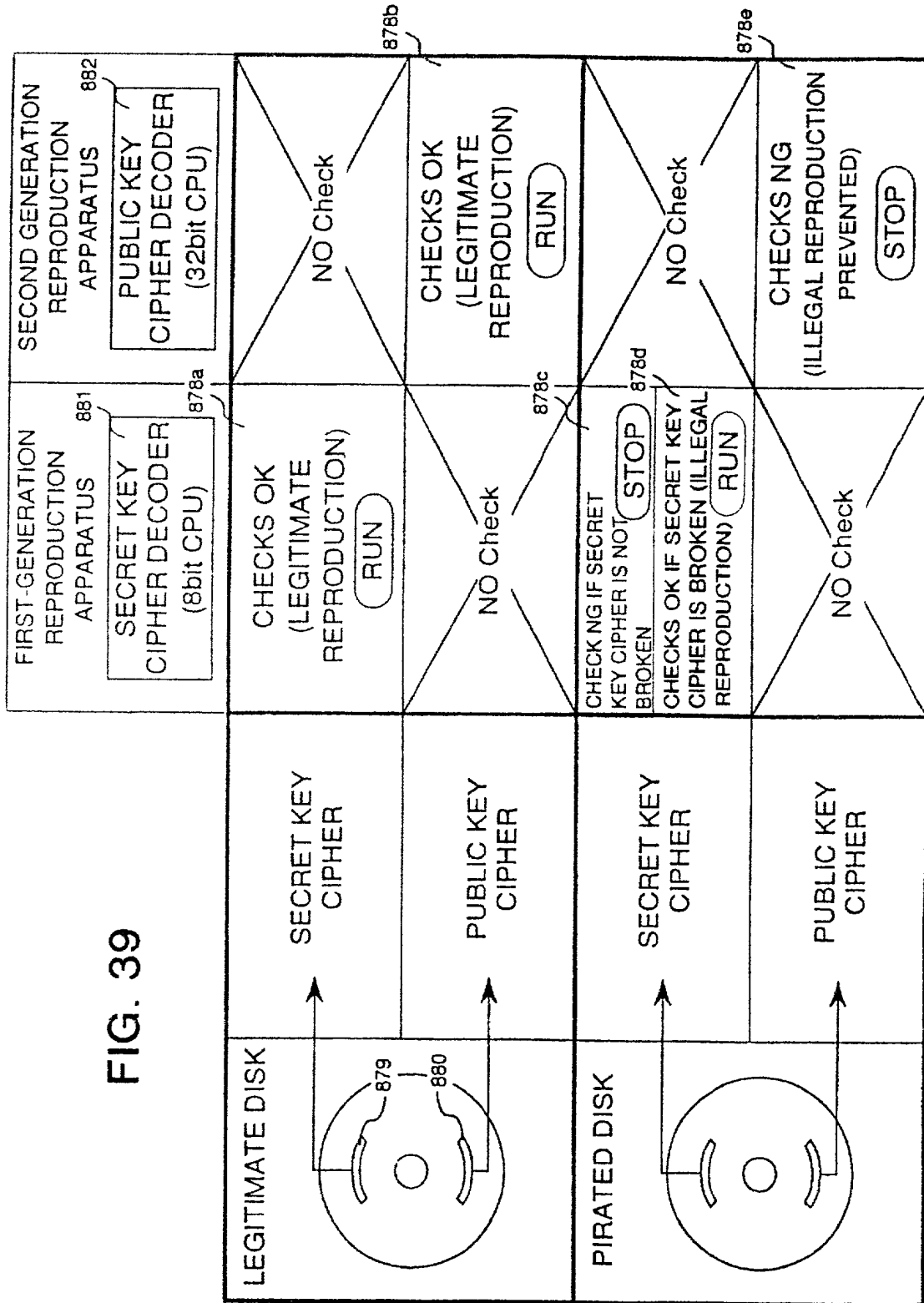


FIG. 38

FIG. 39



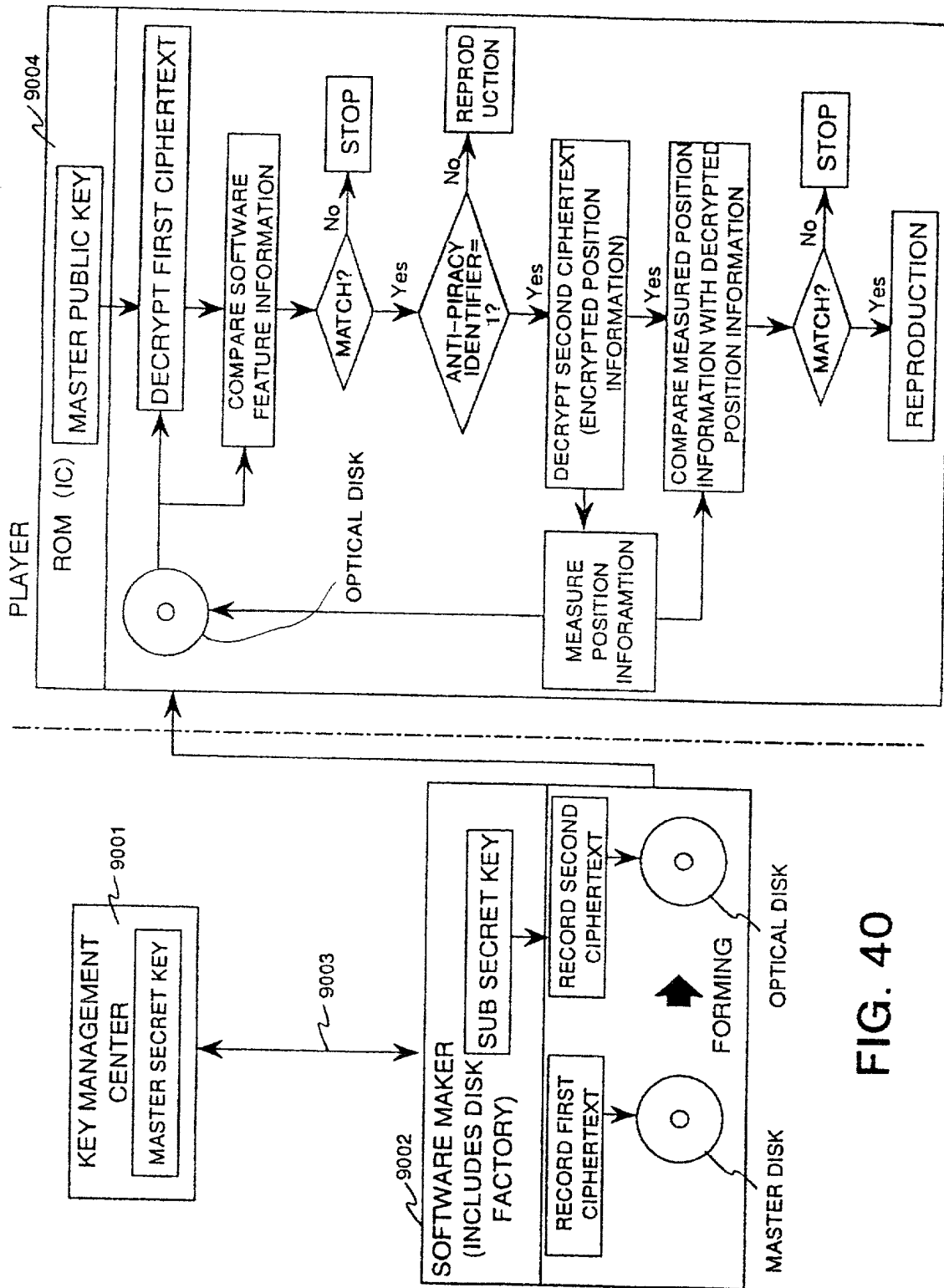


FIG. 40

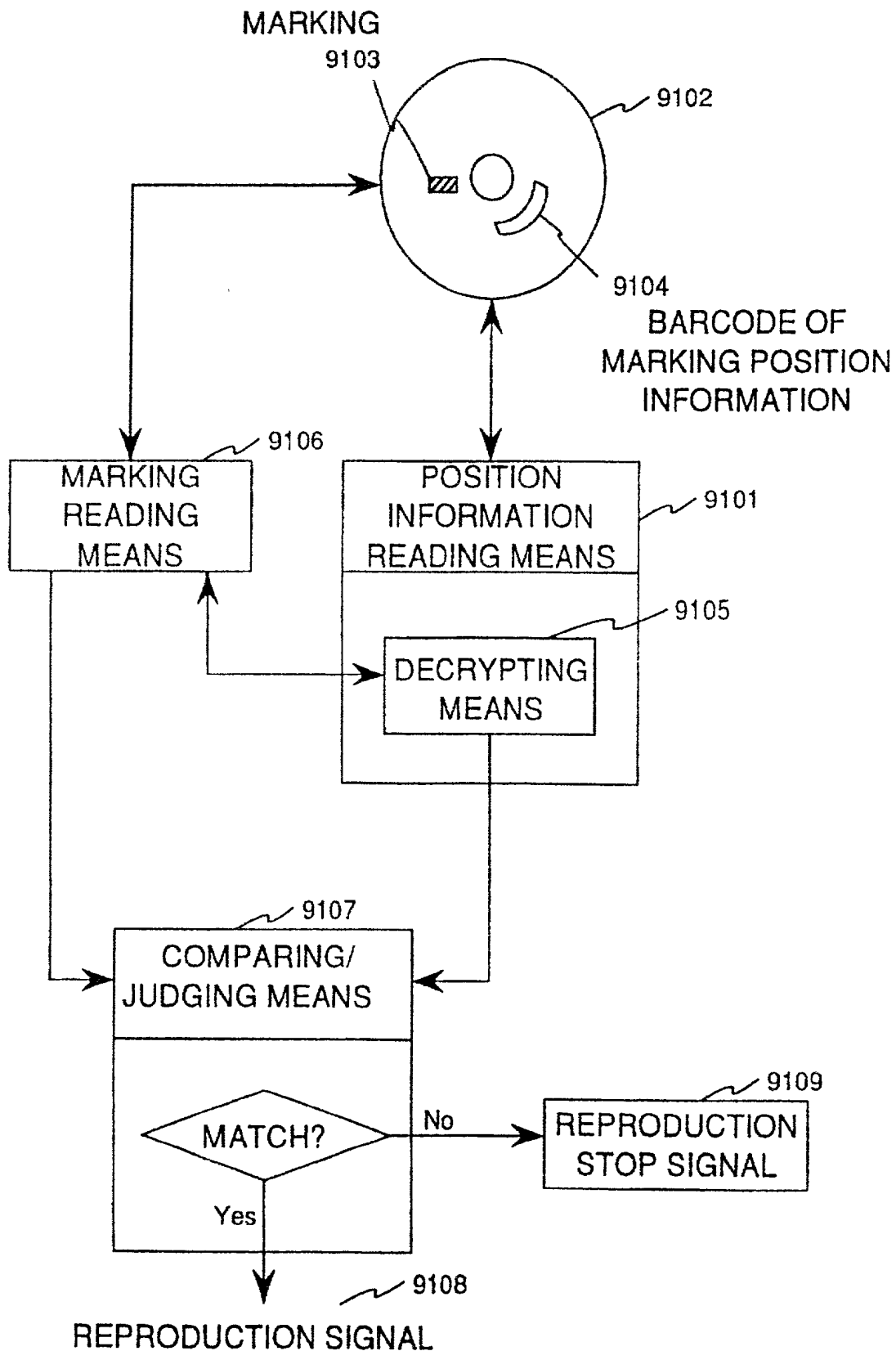


FIG. 41

